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ABSTRACT

This document consists of the four issues of project ACCT's newsletter issued during 1993. Issues provide articles, instructional activities, product announcements and reviews, and features on using computers and other assistive technologies with preschool children who have disabilities. Major articles include: "Preparing the Preschool Computer Environment," "Severe Disabilities and the Computer Environment," "Logo Has Place in Early Childhood Curriculum" (Patricia Hutinger and Joyce Johanson); "Macintosh Applications for Young Children" (Linda Robinson); "ACTT Identifies Six Levels of Switch Progression" (Linda Robinson); "Early-On Program Reinforces Off-Computer Stories with PowerPad Activities"; "Assistive Technology CAN GO HOME!"; and "Children in Indiana Program Enthusiastic about Computer Time." Computer-based learning activities are presented for use with the following computer software programs: "Facemaker Golden Edition," "Logo PLUS," "Catch the Cow," and "Creature Antics." (JDD)

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ACTTive Technology

Project ACTT, Western Illinois University, Macomb, IL 61455

Volume 8, Number 1-4

Winter 1993-Fall 1993

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VOLUME 8, NUMBER 1

Winter 1993

Preparing the Preschool Computer Environment

A child's degree of success in developing skills on the computer depends to a large extent on the learning environment. Among other things, the learning environment includes the area the computer occupies in the room, the child's position at the equipment, the method of input the child uses for the computer, and the teaching strategies implemented.

The information which follows is taken from a chapter in **Building ACTTive Futures: ACTT's Curriculum Guide for Young Children and Technology.** The chapter is divided into three sections: birth to three (see Summer 1992 issue of **ACTTion News**), three to five, and severe disabilities.

The Child: Three to Five

Setting up a learning environment for the preschool child with special needs is an important aspect of organizing a computer activity. **Building ACTTive Futures** uses a problem solving approach with preschoolers to stimulate general thinking skills. This approach requires careful planning. The ideal environment is arranged so the child discovers ideas and develops theories for ideas on his own; it is organized to allow the child some instant success (a software program where any key press on the computer elicits a response on the monitor) and then to challenge the child's thinking skills by offering a preselected variety of options.

The following information introduces problem solving strategies, teaching techniques and the value of computer and computer related activities.

Physical Considerations

Before you actually begin using the computer in your program, consider the environmental design. The computer center within the classroom should be a safe, pleasant place for children. Whether the computer is in the classroom daily or access is on a rotating basis, the set-up of the equipment requires some planning. To set up the computer center:

1. Place the computer against a wall near an outlet and tape cords securely to the floor to avoid accidents.
2. Use a surge suppressor to protect the computer from voltage surges which can damage hardware and erase memory.
3. Place the computer away from direct sunlight. Floppy disks and computer chips can be damaged by direct sunlight and extremes in temperature.

The ideal environment is arranged so the child discovers and develops theories on his own.

4. Select a low traffic area for the computer center. This area should be well defined, allowing the teacher to see what is going on, but limiting distractions for the child.
5. Place the computer on a table without a rug beneath it or use carpeting approved for use with computers (containing copper in the backing) to avoid static electricity which can cause your computer or software to operate unpredictably.
6. Place the computer on a low table for the children. Sometimes you will want to place the monitor on the floor.
7. Adjust the height of the monitor to a comfortable angle for the child. This may mean special adjustment for a child in a wheelchair or adaptive seating device.
8. Have an index file close to the computer center for keeping track of targeted goals, the level each child is working on in a specific software program, and any adaptive equipment a child requires.
9. Keep software in protective disk envelopes and closable disk containers away from direct sunlight and any type of magnetic field (including fans, motors, and even the monitor).
10. Place the equipment to allow free air circulation around and into the vents on the computer case.

Encourage the children to become familiar with written words and reinforce the word-object relationship by placing names of computer parts on each component of the system. Discuss the rules (i.e. no food or drinks at the computer, no dirty hands) for the computer center and for disk handling with the children. Encourage children to draw pictures to illustrate one of the rules or instructions for operating the equipment; then post their pictures in the center. Reminders help foster the children's independent computer use.

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From The Editors. . .

by Linda Robinson

ACTTive Technology - yes we have changed the name of our newsletter. It's ironic because for years we have avoided titles using the "t" word. That word seems to make some people nervous, and others become completely turned off by it. Even today we are careful when we write presentation proposals for early childhood conferences. We have learned that if the session sounds too "techie", the proposal definitely will not be accepted. And this experience is not just common to those of us at Macomb Projects (where we definitely think technology is the "way to go"). We have heard other well-known experts in the field express the same frustrations.

Well, we've become bold! We're proud of the work we do that allows children with disabilities equalized opportunities through technology. And we are proud that this newsletter is about technology. We want readers to be interested in it because of the technology information. Maybe someday soon we can stop pretending we're not talking about computers. Hopefully more people will overcome their own fears and accept the fact that technology is a wonderful tool for young children.

One barrier to incorporating technology is funding. Lack of funds or worry about where the funds will come from often makes people hesitant to admit the benefits of technology. Yes, they know it will help the children, but wonder who is going to pay for it? The answer is that funding does not always need to be the bottom line in the decision to integrate technology into a program. As our cover story states "Your own creativity sets the only limits for using computers with young children." Yes, you do need the initial investment in the technology. However, if you already have access to an older computer, take advantage of it. You can be just as creative with an Apple IIe as with a Macintosh LC. The Mac may provide screens that are more visually appealing and animation that is more interesting than the older computers provide, but it is YOU, the parent or educator who makes the activity exciting for the child. Any software program can be integrated into your early childhood program. Upgrade your integration techniques and you will be Mac LC caliber!!

How do you upgrade? One way that is very timely is through a technology conference, such as ACTT IV!! Why not consider joining us in Macomb? You'll learn many new creative techniques for using Apple and Macintosh computers with young children. And you may even learn how to increase your own productivity. It's an excellent opportunity to revitalize acquired technology skills and gain new ones. The unique aspect of our conference is that it focuses on applications for young children. There should be an applicable topic for you in each time slot, as well as plenty of hands-on experience and opportunities to interact and exchange information with others who have similar interests, concerns, and experiences. Pages 12-14 of this issue contain a schedule for the conference and brief session descriptions. ACTT IV is definitely a **TECHNOLOGY** conference, and we're proud to say it.

Fill out the registration form on page 14 and plan on attending a conference filled with great ideas for your classroom. We hope to see you in Macomb on March 18 and 19!

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***Computer Environment* continued from page 1**

Accessibility

The computer is another classroom learning tool. Like books, dress-up clothes, blocks, paint, clay, scissors and crayons, the computer provides its own impetus for learning. It is *not* a toy or game to be used for reward or punishment; rather, it is an integral part of the classroom that can provide a means for the young child to manipulate his environment to learn and discover information about his world. To deny a child the use of this equipment because he did not share on the playground or to use it as a reward fosters the view that the computer is an external reinforcer. In addition, using the computer in this manner enables only certain children—those who finish their work—to use this tool. However, it is often the children who do not finish their work who could benefit most from computer use.

Physical Design and Support Materials

Provide an interesting, approachable environment for the children in a defined area in the classroom. Low partitions such as bookshelves offer children using the computer center some limitations from outside distractions but still allow you to see what is going on in the center. Keep materials related to the computer activities on the shelves of the center. Support materials are necessary to allow children to examine in additional ways concepts (such as tallest, more, on top of, etc.) introduced in software programs. Transfer of a concept from two dimensional to three dimensional and back again develops the concept in children's minds. The more experiences the child has with each concept using as many senses as possible, the more concrete the concept becomes to the child.

Include in the computer center items such as paper dolls (make them any size, including life size with the FingerPrint® Card and **Paper Dolls** or **Paper Dolls - Dress Me Too**), puzzles (make them using the FingerPrint Card and **Peanuts Picture Puzzlers**), a set of shapes, games (similar to the game board in **The Playroom**), blocks, colored beads, pencils and paper, an Etch-A-Sketch (the overlays developed for Etch-A-Sketch can be adhered to the monitor screen with poster putty and used with LOGO). Do screen dumps of favorite software programs and use these as patterns to reproduce the characters in a flannel board version of the story. As you become familiar with the software programs you are using, you will identify items that the children will find helpful for transferring and generalizing concepts from one experience to another.

Place the computer on a table or cart at an appropriate height for the child with the keyboard slightly higher than the child's elbows. In a mainstreamed classroom, use a table with adjustable legs which allow the table top to be raised or lowered to accomodate a child in a wheel chair. If your class shares a computer with older children, the cart will probably be too high. Move the computer to a child-sized work area so children will be comfortable as they work. Leave at least two chairs at the computer center and encourage children to work together to develop cooperative learning, language, and social skills.

Position the color monitor at eye-level and within reach so children can point to things without verbally expressing themselves in every instance. Consult a physical or occupational therapist regarding proper positioning of a child in a wheelchair or other apparatus and discuss with them possible input devices as alternatives if the child lacks the fine motor control the keyboard requires.

If children don't need to access the keys, present them with the monitor and switch only. Move the computer away from the field of vision, but within your reach for easy access in case you need to reboot the program or boot up a different one. A long monitor cord and switch cable will give you the flexibility of putting the computer in one place and the monitor and switch in another.

From time to time, evaluate the computer center, considering the distractions present in and around it. Consider the classroom noise level and traffic paths, factors that can distract the child. You may need to move the computer center to a new location or plan less distracting activities for others working near the computer area. Children in other areas of the room may be distracted by noise from the computer center. Speech synthesis, music, and sound effects may be distracting to a child in the reading center. Consider all these factors when laying out the computer center and rearrange the room accordingly.

Make sure the center is a safe place to work. Are cords and peripherals tucked away when not in use? Is the electrical outlet safe? Are the disks protected in storage containers? Do you have a static electricity problem? What about magnetic fields? Some of these problems will be easier to overcome than others. Take precautions to safeguard both the children and the equipment.

Ways to Introduce the Computer Center

Introducing the new computer center to children can be accomplished in numerous ways. Teachers should point out and label each part of the equipment and explain how each part of the center is to be used; for instance, the computer is used to operate software and the shelves of material may be played with while others are using the

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***Computer Environment* continued from page 3**

computer. Children should assist in generating the rules; how many should be allowed in the computer area at one time, how many should use the software together (with teacher direction), what should happen if someone does not adhere to the rules, etc. When children help formulate the rules, they are more likely to follow them.

Initially the teacher may want to work with small groups in the center to teach operating procedures and to encourage group cooperation which will be needed as children work in pairs or groups of three or four. Other learning centers should be set up while the teacher spends time at the computer center. Children who demonstrate an understanding of how to use the computer or a particular piece of software may be asked in the future to assist other children who need help when they are at the computer without the teacher present.

Even when teachers are restricted to having the computer in their classroom two hours a day, an effective computer learning environment may be developed. The teacher will need to move the equipment from the generally approved "rolling computer cart," but with a little practice this can be done in five minutes or less. Although moving the equipment may be inconvenient, designing the computer learning environment to allow children to take more responsibility for their learning offers opportunities to develop thinking skills which are difficult to teach. Providing computer and related activities in the learning center, open access, and encouraging peer cooperation in small groups provide an impetus for learning for young children.

Organizational Patterns

Utilize computer time in the classroom most effectively by designing computer activities which can best be accomplished in small groups. Although it is tempting to load a computer program and send one child over to operate it because of its structural simplicity, this limits the computer's use to very few children. Using the computer in group situations requires a great amount of initial planning. To facilitate this process, curriculum objectives for the computer can be organized in the same way that other small group activities are organized.

Begin by recording each student's IEP (Individualized Education Plan) goals and group those children together whose goals are similar. Then select a program which can effectively help children develop those skills. Using the computer with small groups of children also requires internal organization. Children should not always work within the same group; changing groups frequently encourages children to socialize more effectively with others. They begin to develop varying cooperative and adaptive social skills which generalize to other areas of the classroom. They learn more from others and begin to develop the understanding that other people don't always feel or think the way they do, a critical concept in the move from egocentrism to altruism.

> ***Your own creativity sets the only limits for using computers with young children.***

Software which encourages children to work together as a group and not merely take turns should be selected. Turn taking is a basic social skill and for some children may be the best place to start; however, there are many ways to design computer activities which provide children with experience in cooperative problem solving. In addition to individual learning styles, children exhibit a wide variety of background experiences. These experiences greatly enrich any learning activity and encourage group cooperation.

Encourage children to learn from each other by using a "Computer Experts" chart in the computer center. Choose six or seven software programs that children can use during "free time" activity. Make one screen dump for each program and print it out on a full sheet mailing label (use the FingerPrint Card, an ImageWriter II, and a four-color ribbon for best results). To a large, laminated poster board, adhere the screen dumps in a vertical column down the left side. (Any screen dumps you don't want to use at any given time can be stuck to the back of the chart—the laminating allows you to pull them off and reuse them.) Reduce or enlarge photographs of the children on the photocopy machine onto a full sheet mailing label. Cut these out and store them on the back of the chart. When a child becomes proficient at a software program, place his picture in the row to the right of the program's screen dump on the chart. Other children who have difficulties with the program can go to that child for help.

Becoming familiar with many different software programs adds a new responsibility for the teacher, requiring time to look at, review, and design computer curriculum activities. If the district or school only has a few programs to work with, be creative. Your own creativity sets the only limits for using computers with young children. Change the way the program was intended to be used. Some software, like some library books, contains appropriate, but poorly presented, content. A creative teacher can make such material exciting and meaningful for the preschooler.

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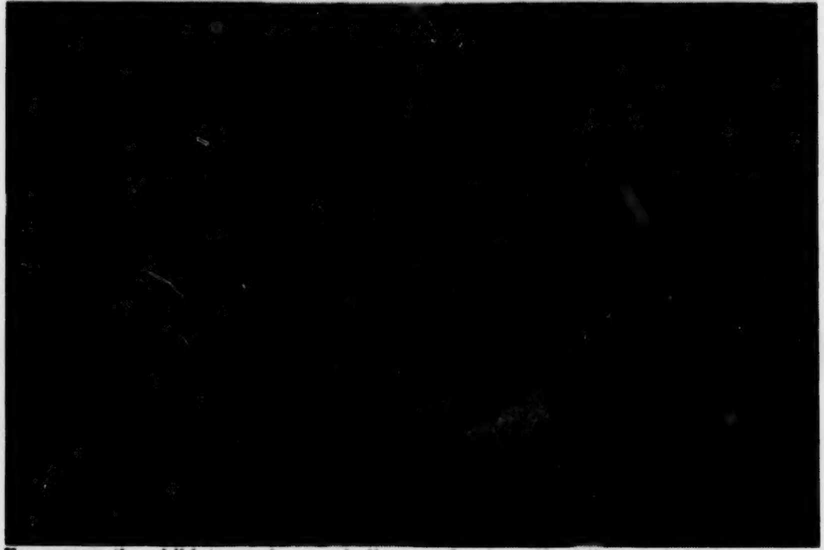
Problem Solving Strategies and Teaching Techniques

A child with disabilities has few opportunities to take an active role in his learning. Often adults are in control of the learning situation; adults present material and the child responds to it.

Provide children opportunities to take some control of their learning by setting up environments which encourage experimentation. Your role changes as the child becomes a more active participant in classroom activities. You become the teaching "guide." You drop clues that help children gain an understanding of their effect on the activity, on or off the computer. You do not necessarily evaluate the child's operation of the program as being right or wrong; instead, you describe what the child has done and offer clues for guiding the child in another direction. For instance, if a child is not using the appropriate keys for operating a program, instead of saying, "No, that's not right!" try saying, "You are pressing the spacebar. What would happen if you tried a different key? What are you going to try next?" Many children will be eager to find the responsive one and will try other keys. Some children will continue to press the "unresponsive" key if they get an attention gaining response from the teacher. Describing to the child what he is doing is less threatening than pointing out to him that he is doing something wrong. Monitor behaviors and praise appropriate ones.

When you begin using this teaching technique, some children need a little time before they understand that answers are not going to be provided without some thought on their part. You provide the child with some possible strategies for solving problems and activities that involve logical and sequential thought.

When a child asks you a question, respond with a divergent question that requires the child to do some thinking. Try some of these questions to stimulate children's thinking: "How did you make this happen? How can you do that again? What did you want the computer to do instead of this? How do you think you can make it happen your way? Did you find a short cut? If you tried ... and... and...then you were very close. How did you know that? What would happen if you ...? Why did you ...? How could you teach Amy how to do this? Tell me about it? What did you do first...next...last?" Questions can go on and on.



Encourage the child to explore and discover for herself while you help her gain an understanding of her effect on the activity by asking thought-provoking questions.

Questions which encourage the child to predict or estimate outcomes stimulate solution to problem situations. When asked frequently, open-ended questions stimulate the child's thinking and the answers demonstrate the child's thinking. This form of teacher-child interaction encourages viewing the learning approach of each child and helps determine the next appropriate instructional concept.

One teacher relates her approach to children's questions: "I tell the children to ask a friend before they ask me. When they've asked two friends and get no answer, they can come and ask me again, and I will help." This method involves peer interaction, definite thinking, and general processing skills. By using the "Computer Experts Chart" described on previous page, children know which classmates to ask and where to go for help.

Try these hints when working with children and computers:

1. Encourage children to do as much as possible for themselves. Teach them how to insert and remove the disk. Explain to the children when the disk can be removed and when they must wait. Ask, for example, "When you are in a car and you see a red light, what should you do?" Follow up with the question, "What do you think the red light on the disk drive means?" Demonstrate proper disk handling techniques.
2. Use the computer in small groups with software programs that encourage children to work together. Children can learn valuable social skills when encouraged to group problem solve. Research has shown that sponta-

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Computer Environment **continued from page 5**

neous language tends to increase through computer use.

3. Encoürage children to help each other. "Ask a friend before you ask me." Assign computer experts for the week. Peer teaching increases on-task behavior and facilitates the acquisition of problem solving skills, independence, and self esteem.

4. Encourage children to discuss their questions with other children who have used the program. Answer questions with similar questions whenever possible to help children develop metacognition skills and provide a model to help children think through problems and sequence their responses.

Computer and Computer-Related Activities

The learning environment should not be confined to the boundaries of the computer center; it should extend to all areas of the classroom. This is important because many computer-related activities can be done in small groups which need a larger activity area.

Computer-related activities encourage the transfer and generalization of skills and concepts, complementing the knowledge gained at the computer. In turn, the computer activities can be used to reinforce concepts taught in another area of the curriculum. Designing computer and computer-related activities that reinforce skills will help you use the computer as an integral part of the curriculum.

Provide computer-related activities for children with multiple disabilities as well. Children who are candidates for alternate input or switch control benefit by learning to use a switch with battery-operated toys. Switches and toys can be sent home easily and are enjoyable. Discuss appropriate switch types with parents and a physical therapist. Once the child has an idea of how and when to use the switch, he will be able to use the switch to operate computer programs.

Computer-related activities facilitate movement to computer activities. Some concepts will be easier for the children to understand because of their computer-related experiences. The child's first experience with the computer should be fun. Programs that respond to any key press or a single switch press offer an opportunity for instant success. Challenges can be made as children show intent for what they do and understand that they are in control of what the computer is doing.

Although most classrooms have a limited amount of software, experiences at the computer do not have to be the same each time. Be creative! There are many ways that programs can be used other than is specified in the documentation. Consider a program's use for each individual child since it is rare that a teacher can use a program in the same way with all her students. To facilitate social and communication skills, group children with similar IEP goals together as partners or in a small group for computer activities; then periodically group more experienced children with novice computer children to act as peer tutors.

Summary

Integrating the computer in the preschool classroom can be challenging, but the results of your efforts are rewarding. Develop your own ideas for creating the computer learning environment in the classroom as you work with the students. Consider some of the ideas presented here for developing a problem solving approach in your classroom. Try some of the teaching techniques to organize and produce computer and computer-related activities of your own which allow children to participate actively in the learning process. Many of the activities you are now using in your classroom will probably adapt easily to the computer.

Suggested Software

The Playroom: Opportunities for Exploration and Discovery

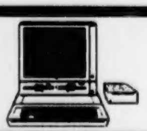
by Letha Clark

Broderbund's **The Playroom** provides an environment that challenges each child to discover while offering opportunities to acquire pre-math and pre-reading skills in a non-threatening manner. The tape recorder/radio displays objects and numerals in various difficulty levels allowing discovery learning to increase math skills.

The ABC book takes the child to a farm, city, or fairytale land and offers the opportunity to create a picture using an object or animal that corresponds to a letter (*L* is for *lion*) and that can be added to the picture by clicking on the object or animal. Letter recognition and labeling skills are improved as the child examines this portion of the playroom.

Letter and word recognition skills are expanded when a child chooses the playroom computer. Difficulty levels can be set to meet or challenge the child's ability. The mixed-up animal lets the child change the head, torso, and feet to create a most unusual animal that can be printed. If a child needs to work on telling time, the cuckoo clock displays time in three different styles, one of which will appeal to a child. As time is selected, there is audio reinforcement as well as the time being displayed in each style. Common activities for "daytime" and "nightime" are shown for each time.

One of the best programs for discovery learning, **The Playroom** is easy to operate using a mouse or the TouchWindow®.



Curriculum ACTTivities

Where Did Boz Go?

*The following curriculum activity was taken from **Building ACTTive Futures: ACTT's Curriculum Guide for Young Children and Technology. Part II: Birth to Three Curriculum Activities***

Content Area: Cognition (object permanence concepts), Language

Child Objectives:
1. Press the TouchWindow® to make character move.
2. Press again after character disappears to make him reappear.
3. Talk about character and action.
4. Indicate understanding of object permanence through program.

Materials:

TouchWindow® (Edmark)
Software, **Creature Antics** (Laureate Learning Systems)
Doll or stuffed animal
Shoebox

Procedures:

Related Activity:
Play a game with the child with a doll or stuffed animal which will fit inside of a shoebox. Dance the doll around and talk about it with the child. While the child is watching, make the doll disappear inside of a hole cut in the top of the shoebox. Ask the child where the object went and encourage her to look for it. If the child does not look for it, make it reappear. Repeat the activity with the same doll and box, then change to a different doll or animal with the same box. As the child grasps the concept of object permanence, different objects and different size boxes could be used. Play hide and seek with the doll during free choice time. Several children may engage in this activity.

Computer Activity:
1. Select "Boz" option in menu of **Creature Antics**, and mount TouchWindow® on monitor.

2. Begin by talking with the child about character on the monitor and relate it to the doll or animal used for computer related activity. Encourage the child to explore the TouchWindow® by pressing on the monitor to see Boz jump and play.

3. Continue encouraging the child to press until Boz disappears. Ask the child what happened to the character and how to bring him back.

4. If the child presses the monitor, verbally reinforce the action by stating what happened in the picture. If the child does not press the monitor, demonstrate how to bring Boz back by pressing and drawing child's attention to the screen.

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Curriculum Activity **continued from page 7**

5. Encourage the child to talk about how the character disappeared and reappeared.

Helpful Hint:
If the child is hesitant to touch the monitor or switch, demonstrate pressing for him. If he is still hesitant, physically assist him in pressing. For a child who has a tendency to bang on the TouchWindow®, gentle verbal discouragement may help.

Variation:
This program can also be used with a switch. As the child presses the switch, draw his attention to the monitor to watch what the character is doing. Allow time for the child to explore the TouchWindow® or switch during the beginning of the activity. He may discover the sequence of events by accident. If so, encourage him to make it happen again.

Adaptations:
Visual Impairment: During the computer related activity, give the doll or toy to the child to hold. Encourage her to feel the doll in different locations, and search for the doll in the box. At the computer, focus on the sounds in the program. After the sound stops, encourage the child to press the TouchWindow® or switch to "find" more sounds.

Auditory Impairment: Signs could be used to describe the action on the screen. Focus on the animation and the character's appearing and disappearing actions.

Motor Impairment: Evaluate which input device, the TouchWindow® or a switch, would be most appropriate for the child. If the TouchWindow® is used, the place monitor close to the child's reaching arm for easier access. The monitor can also be positioned on its back to provide an easier angle for pressing for some children.

? Ask ACTT

Dear Project ACTT,

Our school is thinking about buying a Macintosh LC computer. I know that our Apple IIe software can be used with an LC if we have an Apple IIe emulator card. But what about switch interfaces? Also can we use our present Echo speech synthesizer or do we need a different one? Can you tell me what type of switch interface and speech synthesizer is needed for a Macintosh LCII with an Apple IIe emulator card? Where can these be obtained?

You can adapt your Macintosh LC with an Apple IIe emulator card with two different types of switch interfaces. First, there is a 9-pin switch interface that is designed specifically for Apple computers. You can attach this interface to the 9-pin connection on your IIe emulator card. This will allow you to use any of the Apple switch programs. The cost of this interface is approximately $40.

There is also a Macintosh Switch Interface. This switch interface will operate with Macintosh and Apple software programs designed for mouse clicks and switches. This interface attaches to the ADB port on your Mac. The cost is $135.

The Echo LC is the speech synthesizer you will use with the Macintosh. The Echo LC will provide voice feedback to talking IIe software running on a Macintosh LC with the Apple IIe emulator card. This speech synthesizer will also work with the Apple IIc or IIc+. The Echo LC costs $129.

The switch interfaces and the Echo LC can be purchased from Don Johnston Developmental Equipment, Inc., P.O. Box 639, 1000 North Rand Road, Building 115, Wauconda, IL 60084; 800/999-4660.

Job Opportunity for Technology Trainer

Macomb Projects anticipates an opening in June 1993 for a creative individual experienced using computers and adaptive equipment with young children with disabilities. Send inquiries to 27 Horrabin Hall, WIU, Macomb, IL 61455; attn: Joyce.

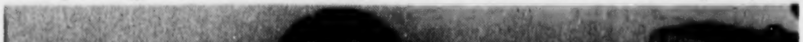
ACTTive Teachers

CHILDREN IN INDIANA PROGRAM ENTHUSIASTIC ABOUT COMPUTER TIME

Jean Fruth, Preschool Instructor at Bona Vista Comprehensive Rehabilitation Services in Kokomo, IN, says the most rewarding thing about working with children and the computer is seeing their faces light up and watching "their enthusiasm when you say 'It's computer time!' They are learning to work together in small groups and also turn-taking and sharing while their skills are reinforced in a fun way."

Jean and Mary Jo Engle, an occupational therapist, participated in training after speaking to a former staff member who was enthusiastic about ACTT's work with computer technology and young children. Jean explained that it was fun to think back over the years since initial training in 1988 because she could see how far they have progressed since those first years.

After training in August of 1988, it was almost two years before Bona Vista had the computers, peripherals, and software programs to train their staff and begin working with the children. They began with one Apple II which had been donated. Currently they have Apple IIGS computers, PowerPads, TouchWindows, Echos, (four of each in four different locations.) in addition to various switches. The IIGS computers were purchased with Chapter I funds. As money is donated, the program purchases additional switches and software.



Preschool aide Marcia Wagoner and children in Bona Vista's morning class work with the PowerPad and UCLA's *Old McDonald's Farm*.

The older children enjoy such programs as **McGee** and *ABC Dragon* on **Motor Training Games** and the Muppet Learning Keys. Younger children at Bona Vista like **Fire Organ** and other cause and effect programs. They also enjoy **Old McDonald's Farm** and **Children's Carousel**.

Bona Vista serves 82 children, ranging from 18 months to five years, in classrooms in Howard and Miami Counties. Disabilities range from physical and mental disabilites to developmentally delayed. Seventy-five , ages 0 - adult, are served as outpatients.

The program has met its primary goal of training all staff to use computers consistently throughout the year to reinforce skills and to provide incentive and reward to children through computer use. (Staff includes five instructors, seven aides, two speech pathologists, an O.T.R., a PT assistant, and a medical rehabilitation aide.)

Jean told us that she is proud of the newly remodeled facilities in the rehabilitation center building in Kokomo which includes enlarged preschool/

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BEST COPY AVAILABLE

Use Your PowerPad with the Macintosh

Dunamis Developing Interface, Cable, Software Allowing PowerPad to be used with the Mac

Don't store your PowerPad in the back of your closet just because your classroom has a new Macintosh! Dunamis is currently testing prototypes of an interface box and cable that will allow you to connect the PowerPad you currently use with your Apple II computers to the Macintosh. However, you will not be able to run Apple II PowerPad programs on the Macintosh. Special Mac PowerPad programs will be marketed.

The PowerPad will connect to the Mac by an interface box similar to the SuperPort to assist in communicating with the Mac. The interface box will connect to the PowerPad with the usual telephone connector and will attach to the Mac through either serial port. The interface box also has two switch input jacks to operate switch-based software and two switch outputs to permit the operation of battery-operated toys.

The PowerPad interface is being designed to enhance the Hypercard development environment. Programs will be written using standard hypercard commands and some special Dunamis PowerPad X-Cmds which, along with a few educational programs, will be available this spring. This will serve as a HyperCard "toolkit" for developing PowerPad programs.

Macintosh PowerPad software will have some special features: it will take greater advantage of the PowerPad's ability to register simultaneous touches. This will be evident in programs that use "gestural encoding," which aims to take physical expressions (such as dragging the hand right or left or rubbing up and down) and translate them into a format the computer can understand. These gestures can be used by students with special needs to activate the computer in creative ways.

Dunamis expects to have the product ready to ship by June 1, 1993. Pricing information is not currently available.

For further information, contact Dunamis at 3620 Hwy. 317, Suwanee, GA 30174.

*The information in this article was taken from Dunamis' **PowerPad/Mac Fact Sheet** and was used with permission of Dunamis, INC.*

***ACTTive Teachers* continued from page 9**

infant classrooms. "We have been serving young children for over 30 years and we are pleased that all 9 of the school districts in the two counties we serve have contracted with us to provide the 3-5 year old preschool programs and eight have contracted for therapy services for those children." She is also looking forward to the March 1993 opening of the new rehabilitation center building in Peru. The program's infant classses and therapies among other adult programs will finally have a permanent home after using rented space in various churches and schools for more than eight years.

Jean and her staff feel that ACTT has helped them enhance and expand their program "by providing activities that reinforce the individual child's skill and goals." They see the computer and adaptive peripherals as providing another medium for stimulation in preschool and therapy.

As for the future use of computers in the Bona Vista classrooms, Jean tells us that they hope to increase computer use with the children, continue training to keep staff up-to-date, and do more with computer use for adults who have severe physical and mental disabilities.

Book Covers Practical Applications of Assistive Technology for Children and Young Adults

The Handbook of Assistive Technology, edited by Gregory Church and Sharon Glennen, emphasizes an interdisciplinary perspective on the practical application of assistive technology with children and young adults with disabilities. Covering all key areas of assistive technology and answering the vital questions that arise in day-to-day work, the book offers information about establishing, maintaining, and expanding assistive technology services.

Contents include "Assistive Technology Program Development," "Introduction to Microcomputers," "Positioning and Power Mobility," "Augmentative and Alternative Communication," "Adaptive Access for Microcomputers," Adaptive Toys and Environmental Controls," "Integrating Assistive Technology in the Classroom and Community," "Assistive Technology Project Directory," "Assistive Technology Resources," and "Glossary of Assistive Technology."

The 300 page *Handbook of Assistive Technology* is available for $39.95 from Singluar Publishing Group, Inc., 6308 Bellona Avenue, Baltimore, MD 21212; 800/944-TEXT.

Unicorn Engineering Creates New 'IntelliProducts,' Changes Name

New products are now available for use with IntelliKeys. The IntelliKeys IIe Card, which sells for $99.95, simply plugs into any slot. The IIe Card adds an IntelliKeys connector to the back of the computer and you just plug your IntelliKeys into the connector! No software installation is required.

IntelliKeys Keyguards are also available to isolate each key and help users make accurate choices. There is a keyguard ($50 each) for each of the six IntelliKeys overlays (alphabet, numbers, arrows, basic writing, Apple QWERTY, and IBM QWERTY). The keyguards are made of clear acrylic that has been precision laser cut. A bundle of the six keyguards sells for $250.

IntelliTalk is a talking word processor and a tool for a non-verbal person who uses IntelliKeys as a communication device. An Echo is required for use with Apple II computers. Macintosh computers use the built-in MacinTalk speech. Either version sells for $39.95.

IntelliKeys Overlay Maker allows you to create overlays for the IntelliKeys quickly and easily. Its versatility lets you create a custom overlay on a Macintosh and still be able to use the overlay with the IntelliKeys connected to an IBM or Apple! The Mac version runs on all Macs except the Plus and 512; it works like a drawing program and comes with about 200 common Picture Communication Symbols from the Mayer-Johnson Company. The Apple version runs on the IIe, IIGS, and Mac LC (in the IIe mode). It contains 15 different layouts, and allows you to follow clear menu choices to create overlays in minutes. Either version sells for $69.95. Version 2.0 of each will be available in March. If you purchase IntelliTalk with the IntelliKeys Overlay Maker, you can save $10.

By the way, Unicorn Engineering, Inc., the creator of IntelliKeys and the Unicorn Expanded Keyboard, has changed its name to IntelliTools. Contact them at 5221 Central Avenue, Suite 205, Richmond, CA 94804 for more information about any of the products mentioned.

Books on Disabilities and Assistive Technology

Special Needs Project sells books about physical and mental disabilities. The books they have available are of interest to teachers, family members, pediatricians, as well as people with disabilities. There are books about disabilities written by professionals, parents, and siblings of children with disabilities. There are books written by individuals with disabilities who share their inspiring stories.

Special Needs Project is becoming an excellent source for books on assistive technology. A short bibliography of such books is available free. Just ask for their "ATA booklist." Special Needs Project, 1482 East Valley Road #A-121, Santa Barbara, CA 93108; 800/333-6867; fax 805/969-4321.

Software, Pillow, Audio Tape Provide 'Multisensory Learning Experience'

The King and His Closet is a collaborative effort between Moonlight Software and Learning Pillows™. This product, directed toward children from preschool to grade 2, is also appropriate for children who experience visual, physical, or cognitive impairments.

The King and His Closet is advertised as "a multisensory learning experience." It includes software for a TouchWindow and Echo for use on the Apple IIe, IIc, IIGS (or a Mac LC which has a IIe emulator card); an audio story tape; and a tactile Learning Pillow.

Learning Pillows are made of soft felt and/or nyloop and have tactile designs on them, such as jingle bells, rick-rack, velcro, and raised bumps or lines. These features enable a youngster to feel the pillow and follow along as the story is being read. The computer is then used to enhance the learning. The graphics on the screen correspond to the images on the pillow, and the child receives audio feed-back from the Echo. By using the senses of touch, sight, and sound, a child is able to participate more actively in the story.

The King and His Closet provides opportunities for a child to learn the following skills: making choices, free play with open-ended exploration, attending to shape differences, same and different, parts of a face, and others.

The software, Learning Pillow, and audio tape sell as a package for $79.95. To order, contact Moonlight Software, P.O. Box 164, Colchester, CT 06415; 203/537-0217.

Annual ACTT Conference Scheduled for March 18 - 19

Once again Project ACTT is preparing for its annual technology conference for teachers, parents, and service providers of young children with disabilities. This year's conference promises to be better than ever, as a glance at the schedule below will show. Why don't you join us for two days of learning and networking? A registration form is on page 14.

ACTT IV Conference Schedule

Thursday, March 18

8:00 **Registration/Continental Breakfast**

8:30 **Opening Session/Keynote Address**
Keynote Speaker: Susan Mistrett
Topic: Technology: Where We've Been and Where We're Going

10:00 Sessions

I. **Activating the Computer for Active Learning**
Tips on integrating the computer into the early childhood classroom.

II. **Software Preview Lab**
An opportunity to explore and preview Project ACTT's vast early childhood software library .

III. **An Overview of Selected Macintosh Software for Early Childhood Educators and Parents**
Selected Macintosh software for preschools will be demonstrated and discussed.

IV. **Let the Computer Make Your Life Easier!**
Database, spreadsheet, word processing, and other time-saving features will be demonstrated and discussed.

V. **Visual Arts Adaptations**
An opportunity to observe and create artwork in a variety of media, including computer technology. ($3 Material Fee)

11:30 **Lunch**

12:40 Sessions

I. **Public Domain Preview Lab**
An opportunity to preview public domain software from Project ACTT's library. Come for one session or stay all afternoon. Order forms will be available and copies will be made for you for a modest price ($2/disk).

II. **Mac 'n' Me**
An opportunity to use a Macintosh LC, to preview software, to explore peripherals, and to decide if it's the computer for your classroom. Stay for one session or stay all afternoon.

III. **Adaptive Firmware Card Workshop**
A demonstration of the AFC G32 or G32e for the IIGS. Lab time will allow participants to use applications with various peripherals. Attendance limited. This workshop lasts all afternoon. You may purchase a set-up disk for $3 (optional).

IV. **Compact Discs: The Newest Software for Children and Adults**
An introduction to CD-ROM technology and a demonstration of a variety of CD-ROMs for children and adults.

V. **Integrating Technology into the Early Childhood Classroom**
Specific procedures will be offered on how to introduce computer activities and then incorporate them into free time, art, language, gross motor and storyboard activities so that all children may participate.

VI. **A Closer Look: Observational Assessment for Classroom Teachers**
A description of various observational recording techniques, their benefits and purposes. Information on funding for observational equipment.

2:15 **Break**

continued on page 13

ACTT Conference **continued from page 12**

2:30 Sessions

- I. **Public Domain Preview Lab (continued)**
  Come in anytime to preview public domain software and have those you like copied for a nominal fee ($2/disk).
- II. **Mac 'n' Me (continued)**
  Stop by and browse at the Macintosh LC, peripherals, and software.
- III. **AFC Workshop (continued)**
  The second half of a 3-hour session.
- IV. **Needs-Based Use of Technology with Young Children**
  Explore an observational assessment process which is designed to be child-specific and driven by the learner to determine if, why, and how to use technology.
- V. **Assistive Technology Resources for Young Children**
  Learn what resources the Illinois Assistive Technology Project has available for young children with disabilities. Find out how to access the IATP counterpart in your state.
- VI. **Then and Now: Computers in My Classroom**
  Learn how one teacher overcame challenges to using computers in her preschool classroom. Find out what she now knows that she wishes someone would have told her when she first began using technology.

Friday, March 19

8:00 Registration/Continental Breakfast

8:30 Sessions

- I. **Switches: Under Construction**
  This all-day workshop will feature different switches each session. Make switches all day today or join in for a session that looks interesting. This session: battery interrupter, Y-cord or extension cord, clothespin switch. ($5 material fee.)
- II. **Public Domain Preview Lab**
  Preview public domain software from ACTT's extensive library. If you like something, ask to have it copied for a nominal fee ($2/disk). Spend one session or the whole morning in this workshop.
- III. **Adapting the Macintosh LC for Young Children with Disabilities**
  Find out what adaptive peripherals are available for the LC; learn about applications with the IIe Emulator Card and Apple peripherals.
- IV. **Integrating Technology into the Early Childhood Classroom**
  A repeat of Thursday's session of the same title.
- V. **Makin' Music with Your Feet**
  See FDLRS famous Music Mat in action! Learn to make one yourself.

10:10 Sessions

- I. **Switches: Under Construction**
  This session: tread switch, mercury switch, pillow switch ($5 material fee).
- II. **Public Domain Preview Lab**
  The final session for previewing and ordering copies ($2/disk) of public domain software.
- III. **Adapting the Macintosh LC for Young Children with Disabilities**
  A repeat of the earlier session of the same title.
- IV. **Funding Assistive Technology**
  Learn how three families funded assistive technology for their young children. Find out what options are available.
- V. **Distance Education from Satellite to Telephone Lines**
  Find out the latest about distance learning. What are the possibilities?
- VI. **Enriching Partnerships Through Video Technology**
  View samples of videotapes which illustrate the impact video records have on traditional assessment measures.

11:45 Lunch

continued on page 14

ACTT Conference continued from page 13

12:50 Sessions

I. **Switches: Under Construction**
This session: switch input box, string switch ($5 material fee).

II. **Software Preview Lab**
Spend this session — and the next one if you like — previewing software from ACTT's software library.

III. **Assessing Technology Needs of Young Children**
Learn about effective procedures for making recommendations on equipment, input method, software, curriculum activities, and adaptations for children, birth to eight.

IV. **Evaluation of Educational Software**
Learn techniques and considerations for choosing appropriate software to meet a child's educational goals.

V. **A Closer Look: Observational Assessment for Classroom Teachers**
A repeat of the Thursday session of the same title.

2:20 **Break**

2:35 Sessions

I. **Switches: Under Construction**
This session: grasp switch, broken toy workshop, finish that switch, adapt-a-switch ($5 material fee).

II. **Software Preview Lab**
A final opportunity to see some software you've always wanted a chance to preview.

III. **Assessing Technology Needs of Young Children**
A repeat of the earlier session of the same title.

IV. **Visual Arts Adaptations**
A repeat of the Thursday session of the same title ($3 material fee).

V. **Technology Applications in Family Intervention**
A discussion of the use of adapted toys and computer in a 0 - 3 program. A demonstration of successful activities and strategies.

Some hands-on sessions have a small fee for materials. All conference sessions will be held in Horrabin Hall on the Western Illinois University campus. Special conference rates of $40/single and $46/double have been established at Macomb's Holiday Inn (309/833-5511). Be sure to mention the conference and rates when you register. Other lodging is also available. Call the Macomb Projects' office for those numbers.

The registration fee includes meals and sodas during breaks. Reduced registration rates ($25/person) are available to parents of young children with disabilities.

- -

ACTT IV Conference Registration Form

Name ____________________
Agency ____________________
Address ____________________
City ____________________ State __________ Zip __________
Phone (______) ____________________ Fax (______) ____________________

Regular Registration

____ $45 enclosed for the two-day conference
____ $25 enclosed for Thursday, March 18 only
____ $25 enclosed for Friday, March 19 only

Parents of young children (0-8) with disabilities

____ $25 enclosed for the two-day conference
____ $15 enclosed for Thursday, March 18 only
____ $15 enclossed for Friday, March 19 only

Special Registration

____ $35 enclosed per person for a Group Registration (four or more people from the same agency)
Send all registration forms together with payment or purchase order.

____ Please check if special accommodations are needed.
Nature of accommodations requested: ____________________

Your payment or purchase order must accompany registration. Phone registrations are not accepted. Make checks and money orders payable to Macomb Projects (U.S. funds only, please.) Send payment and registration form to ACTT IV Conference, 27 Horrabin Hall, Western Illinois University, Macomb, IL 61455. Call 309/298-1634 if you have questions.

ASHA Offers Modules, Video for Assistive Technology Implementation

Technology in the Classroom (Kit) is a collection of four written modules and a 15:30 minute VHS videotape designed to help families and professionals implement assistive technology in the education programs of young children, ages 2 - 7, who have severe disabilities.

The **Positioning, Access and Mobility** module discusses how to position children comfortably so that they can participate in daily activities. It also gives ideas on how to enable children to activate technology that helps them to move about when they are physically incapable of moving without assistance.

The **Education** module describes technologies that allow children to perform both pre-academic and academic tasks that teach them how to learn. Computer terminology and adaptations are also covered.

The **Communication** module gives technological substitutes for children who find speaking either difficult or impossible. The process is built around a child's educational curriculum, focusing towards helping the child achieve functional levels in all areas of life, including home, school, and community.

The **Listening and Hearing** module discusses hearing technologies and listening strategies that improve a child's opportunities to learn from his or her environment.

The 15:30-minute video provides a brief look at assistive technology and how it helps children with disabilities, in real-life situations.

Technology in the Classroom (Kit) is available from the American Speech-Language-Hearing Association for $105 plus $1.50 for handling. Contact ASHA at 10801 Rockville Pike, Rockville, MD 20852; 301/897-5700 for more information.

National Information Resource on Technology

Technology to Assist Persons with Disabilities is a national system which provides free information about resources in each state. For information, call 800/922-9234, extension 301.

TECH ACCESS Aids Technology Assessments

Macomb Projects' observational tool, **TECH ACCESS** (Technology Assessment for Computer Capability for the Education of Special Students) is used during technology assessments to record observations and comments about a child's ability to use switches, touch tablets, and keyboards,

The form provides an easy-to-use check list for assessing the child's most reliable movement and abilities to use the various input devices.

General statements about the child's behavior and performance, as well as statements regarding the equipment, software, and any significant events during the assessment may also be recorded on the form. The information recorded on **TECH ACCESS** is used for making recommendations for an input device.

Order for $19.95 plus $3 handling from Macomb Projects, 27 Horrabin Hall, Western Illinois University, Macomb, IL 61455

New Publication, Video Available for Apple II Proponents

Are you a die-hard Apple II fan who feels that the Apple II is getting a raw deal now that the Macintosh is being so highly promoted? Or do you feel as if you're "stuck" with your Apple II while everyone else is getting a Macintosh?

A new magazine, **II Alive**, may make you feel better about your Apple II. Joe Gleason, publisher of **II Alive**, explains that they started the new publication to *celebrate* the Apple II. The magazine is packed with information to tell you how to get more out of your Apple II. He promises "something for everyone, whether you are an absolute beginner or a power user."

Jerry Kindall, editor of **II Alive**, says, "You'll find accurate advice on using your Apple II to its fullest...You'll get the scoop on the hottest new products...We'll resurrect the best features of Apple II publications of the past and innovate new features to give you the 100% pure Apple II information you crave. It'll be exciting, fun, and informative reading."

A subscription to **II Alive** is $19.95 for six issues. Included with the subscripton is a *free* video tape, **Apple II Review**, which shows popular products from 1992 and previews the latest for 1993 and gives helpful tips on AppleWorks, multimedia, and System 6.

To begin your subscription, phone Quality Computers at 800/777-3642 or write P.O. Box 665, St. Clair Shores, MI 48080.

Sample copies of **II Alive** will be available at the ACTT IV Conference.

NIDRR funds Ten ADA Regional Technical Assistance Centers

The National Institute on Disability and Rehabilitation Research (NIDRR) has funded ten regional centers for five years to provide information, training, and technical assistance related to implementation of the ADA. Remember that ADA pertains to *all* Americans with disabilities, regardless of age. Children with disabilities, as well as adults, are covered under the Act, specifically as it pertains to public accommodations for child care centers.

To be connected directly to the regional center serving your state, call 800/949-4232.

Region I (CT, ME, MA, NH, RI, VT)
New England Disability and Business Technical Assistance Center
University of Southern Maine
Muski Institute of Public Affairs
Jennifer G. Eckel
96 Falmouth Street
Portland, ME 04130
207/780-4430; 207/780-4417 fax

Region II (NJ, NY, PR, VI)
Northeast Disability and Business Technical Assistance Center
United Cerebral Palsy Association of New Jersey
Richard Dodds
354 South Broad Street
Trenton, NH 08608
609/392-4004; 609/392-3505 fax

Region III (DE, MD, PA, VA, DC, WV)
Mid-Atlantic Disability and Business Technical Assistance Center
Independence Center of Northern VA
Sharon Mistler
2111 Wilson Blvd.
Arlington, VA 22201
703/525-3268; 703/525-6835 fax

Region IV (AL, FL, GA, KY, MS, NC, SC, TN)
Southeast Disability and Business Technical Assistance Center
United Cerebral Palsy Association
The SMART Exchange
Shelley Kaplan
1776 Peachtree St., Suite 310 North
Atlanta, GA 30309
404/888-0022; 404/888-9091 fax

Region V (IL, IN, MI, MN, OH, WI)
Great Lakes Disability and Business Technical Assistance Center
University of Illinois at Chicago
Affiliated Program in Developmental Disabilities
David Braddock
1640 W. Roosevelt Road
Chicago, IL 60608
312/413-1647; 800/729-8275
312/413-1326 fax

Region VI (AR, LA, NM, OK, TX)
Southwest Disability and Business Technical Assistance Center
The Institute for Rehabilitation Research
Lex Frieden
2323 S. Shepherd, Suite 100
Houston, TX 77019
713/520-0232; 713/520-5785 fax

Region VII (IA, KS, MO, NE)
Great Plains Disability and Business Technical Assistance Center
University of Missouri at Columbia
Jim deJong
401 E. Locust Street.
Columbia, MO 65201
314/882-3807; 314/882-1727 fax

Region VIII (CO, MT, ND, SD, UT, WY)
Rocky Mountain Disability and Business Technical Assistance Center
Meeting the Challenge, Inc.
Randy Dipner
3630 Sinton Road, Suite 103
Colorado Springs, CO 80907-5072
719/444-0252; 719/444-0269 fax

Region IX (AZ, CA, HI, NV, Pacific Basin)
Pacific Coast Disability and Business Technical Assistance Center
Berkeley Planning Associates
Erica Jones
440 Grand Avenue, Suite 500
Oakland, CA 94610
415/465-7884;415/465-7885 fax

Region X (AK, ID, OR, WA)
Northwest Disability and Business Technical Assistance Center
Washington State Governor's Committee
Toby Olson
212 Maple Park KG-11
Olympia, WA 98504
206/438-3168; 206/438-4014 fax

Another resource funded by NIDRR is ABLEDATA, an electronic databse of 15,000 listings of adaptive devices for all disabilities. Call 800/334-5404 or 800/345-4277.

This information was made available from Access ADA, a project of The Arc, P.O. Box 300649, Arlington, TX 76010; 800/433-5255.

Calendar of Conferences

March 18-19: ACTT IV, Project ACTT's 4th Annual Technology Conference focusing on Using Technology to Equalize Opportunities for Young Children with Disabilities. Held in Macomb, IL. Contact Joyce Johanson, ACTT IV Coordinator, 27 Horrabin Hall, Western Illinois University, Macomb, IL 61455; 309/298-1634.

May 4-7: "Meeting the Challenges in Developmental Disabilities: How to Promote Independence, Inclusion, Individualization, and Quality of Life," the Young Adult Institute's 14th Annual International Conference. Held in New York City. Contact Ben Nivin, Conference Director, 460 West 34 Street, New York, NY 10001-2382; 2212/563-7474 ext 203.

June 12-17: RESNA '93: "Engineering the ADA, from Vision to Reality with Technology," RESNA's 16th Annual Conference. Held in Las Vegas, NV. Contact RESNA, Suite 700, 1101 Connecticut Avenue NW, Washington, DC 20036; 202/857-1199.

June 23-26: World Conference on Educational Multimedia and Hypermedia, held in Orlando, FL, sponsored by the Association for the Advancement of Computing in Education, P.O. Box 2966, Charlottesville, VA 22902.

July 12-16: ConnSENSE '93. Held in Storrs, CT. Contact Chauncy N. Rucker, UConn Special Education Technology Lab, 249 Glenbrook Road, U-64, Storrs, CT 06269-2064; 203/486-0165.

July 15-17: "AERx—A Prescription for the Future!" hosted by the Ontario Chapter of AER (Association for the Education and Rehabilitation of Blind and Visually Impaired). Held in Kitchener, Ontario, Canada. Contact Centre for Sight Enhancement, School of Optometry, University of Waterloo, Waterloo, Ontario N2L 3G1 Canada; 519/888-4708.

July 27-28: ADA Expo '93 "Complying with the Law through Technology." Held in Washington, DC. Contact USPDI, 1734 Elton Road, Suite 221, Silver Spring, MD 20903; 301/445-4400.

Illinois Funding Resource Manual

A funding resource manual that provides information on 59 public and private funding resources in Illinois is available from the Illinois Assistive Technology Project (IATP). The manual is available in Braille, large print, or on disk in either DOS text or WordPerfect format. Contact IATP for prices and ordering information. IATP, 411 East Adams Street, Springfield, IL 62701; 217/522-7985 or 800/852-5110.

Project ACTT to Host Summer Technology Training

Applications are now being accepted for Project ACTT's two summer training sessions, June 7 - 11 and August 2 - 6, 1993.

Training is open to early intervention personnel and parents who wish to learn computer basics, work with various programs and peripherals, and discover how to integrate technology into a curriculum or use technology to meet a child's IEP goals.

Early intervention personnel from sites agreeing to adopt the ACTT model pay no fee for the week of training. Fees are waived for parents who have young children with disabilities. Training fees for others range from $100 to $300, depending on the number of days a participant attends.

ACTT training participants are eligible for graduate credit from WIU but must pay university tuition.

Registration forms, training schedules, and details on model adoption are available from Linda Robinson, ACTT Coordinator, 27 Horrabin Hall, Western Illinois University, Macomb, IL 61455; 309/298-1634 or 309/298-2305 fax.

$50 **Money-Saving Coupon** **$50**

Building ACTTive Futures: ACTT's Curriculum Guide for Young Children and Technology is now available for $50 (1/2 off our regular price)!!!

Order ACTT's five part curriculum guide full of activities for 0-3, preschool, and severe disabilities.

Return this coupon (or a photocopy) with your order to Project ACTT, 27 Horrabin Hall, Western Illinois University, Macomb, IL 61455

Instructional Materials

for use with children with disabilities

Software

Switch 'N See

Designed for the cognitively young child, this software has been developed to reinforce the cause and effect relationship to a switch press. When the switch is pressed, a rag doll appears on the monitor and dances to "Skip To My Lou". Switch press timings are recorded on the disk and may be printed out in hard copy. **Switch 'N See** is a good software program for use when introducing the computer monitor to the child with disabilities. **$11.95**

Master Blaster

Who will be the first to launch the space ship? Your children will love this switch game for two players. Designed to reinforce visual attending with a switch press response, you have the option of adding a "beep" as an additional auditory cue to signal when to respond with a switch press. **MasterBlaster** is used in conjunction with the Echo speech synthesizer and warns of too early of a press with "Jimmy (you enter your child's name), release your switch." This auditory cue is repeated until the press is released. **Master Blaster** records which child presses the switch first and his response time. Records may be printed out for hard copy documentation. **$11.95**

Simple Switch Activities

You will appreciate this software program which records data on switch presses for activities in four aspects of developing cause and effect relationships. The recordkeeping information includes the number of presses, duration of a press, and elapsed time between presses. This "user-friendly" software will provide you with accurate documentation for measuring skill acquisition. **$19.95**

Books

The Technology Team Assessment Process

This manual contains a complete narrative which describes Macomb Projects' team approach to assessing a young child's ability to use technology to further develop skills. Procedures and forms to be used before, during, and after the assessment are included, as well as resource lists and information on hardware, software, and adaptive materials. **TECH ACCESS**, an observational tool for recording a child's reactions and ability to use switch, touch tablet, or keyboard input is contained in this manual as one of the assessment forms used during the process. **$69.95**

The Best of ACTTion News

This compilation of articles from *ACTTion News*, the quarterly neewsletter of Project ACTT, contains a wealth of information that has been gathered by our staff and published in the newsletter from 1989 - 1992. We've included exciting information on the benefits of technology in the development of young children with disabilities, creative ideas, practical advice, helpful hints, and much more! Articles are arranged alphabetically for ease in locating and are also identified according to the issue in which they were originally published. **$19.95**

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This 1990 revision of the **ACTT Curriculum** retains the philosophy of the former but features many new activities and updated technology information. Published in five separate sections, this guide is an asset for any instructor who wishes to give students the benefits of technology in the classroom. Sections include:

Part I: *Philosophy, Learning Environments, Family Involvement and Resources;*
Part II: *Birth to Three Curriculum Activities;*
Part III: *Preschool Curriculum Activities;*
Part IV: *Severe Disabilities Curriculum Activities;*
Part V: *Amazing LOGO:Procedures and Activities*

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Severe Disabilities and the Computer Environment

A child's degree of success in developing skills on the computer depends to a large extent on the learning environment. Among other things, the learning environment includes the area the computer occupies in the room, the child's position at the equipment, the method of input the child uses for the computer, and the teaching strategies implemented.

The information which follows is taken from a chapter in **Building ACTTive Futures: ACTT's Curriculum Guide for Young Children and Technology.** The chapter is divided into three sections: birth to three (see Summer 1992 issue of **ACTTion News**), three to five (see Winter 1993 issue of **ACTTive Technology**), and severe disabilities.

The Child: Severe Disabilities

Because the computer can provide positive changes in the lives of children with severe disabilities, the importance of the computer learning environment cannot be underestimated. Experimentation and continual reevaluation are necessary to find the appropriate placement for the computer equipment and the child, but increasing the child's ability to function independently is well worth the effort. Don't allow preconceived concepts of the child's abilities to limit activities you attempt with him on the computer; the child will experience some degree of success once you have found the right combination of equipment, software, and body positioning.

This section will discuss factors affecting the child's performance, helpful hints on how to store and care for equipment, equipment recommendations, and teaching strategies.

Physical Considerations

A corner of the room or an area separated from the rest of the room by dividers provides a semi-private center for computer activities. Be sure there is appropriate space for more than one child in a wheelchair to use the computer at a time or for the computer to be placed on the floor for a child to use in various positions. Placing a small table and chair in the computer center will facilitate moving the monitor and keyboard so that an ambulatory child can view the monitor just as comfortably as a child in a wheelchair. The location of outlets in the room plays a major role in establishing where the computer is placed. Tape electrical cords against the wall or floor, when necessary, to enable wheelchairs to move freely.

Appropriate positioning is extremely important for children with motor disabilities if computer and adaptive technology use is to be successful.

Positioning Strategies

Appropriate positioning is extremely important for children with motor disabilities if computer and adaptive technology use is to be successful. When first determining the best position for a specific child's computer access, consult with the child's parents and an occupational or physical therapist. If the child is visually impaired, the vision consultant should be part of the team. Some aspects to consider when positioning a child are:

1. In which position is the child most comfortable?
2. What is the child's resting position?
3. How long should the child stay in one position at a time?
4. What are the child's most reliable, consistent movements? (They may vary depending on what position the child is in.)

Perception and the ability to integrate motor control with vision or hearing also play an important role in determining the most comfortable, consistent position for the child. For example, merely changing the child's position in relation to the monitor may improve his ability to use the input device and maintain his visual attending. Consider these questions:

1. How long can the child visually attend to the monitor?
2. Can the child visually track an item across midline?
3. Can he work with his eyes in midline?
4. How does the child coordinate his eyes and his motor skills (Does he have to look at his hand to operate the input device? How difficult is it for

continued on page 3

From The Editors. . .

by Linda Robinson

We know that the Macintosh is designed to be "user friendly" for adults, but is it easy and, more importantly, appropriate for young children to use? We are asked this question often. And our answer is YES - definitely!

As you may have noticed in our past few newsletters we have been adding more information on the Macintosh LC computer and peripherals. I will admit that two years ago most people in our office liked the Apple IIGS so well, that it was difficult to think of the Macintosh as appropriate for young children. We were not convinced that children in preschool programs needed this advanced technology until we explored its possibilities more and began to observe children using it.

For the past several weeks we have been collecting data in a local preschool classrooom on children's choices for play centers during free play time. One of the centers has the Macintosh LC and a Macintosh TouchWindow. Children select the software they want to use through **Kids' Desk**, a program in which you can create a "desktop" for each child. The child can then choose what software she wants to use by opening it from her desktop. The available programs included **Katie's Farm**, **Millie's Math House**, and **KidPix**. Most of the children had no problem getting into the program or getting in and out of the menu. Right away you can probably think of one big advantage of this new technology - no disk handling. The child who has difficulty putting a disk into the drive can press on the Macintosh TouchWindow to get the disk she wants. She can become independent in selecting programs. For some children the program selection seemed accidental, yet they would persist in trying to figure out how to get the program they wanted. Think of the problem solving strategies involved!

Also we have observed that children do a lot of exploring just with the mouse, moving it and clicking. They can get into different screens and different effects in a program. It makes each activity even more interesting for them. And to our delight, most of the children could operate the mouse with no problem. Attention and eye-hand coordination can be increased tremendously, since concentrated effort is needed for the child to move the cursor exactly where he wants it on the screen.

The quality of sound and the ability to record your own sounds is especially good for young children. They can associate the sound with the object or action more easily if it is the real sound or a recorded voice with which they are familiar. The graphics are especially appealing for the same reason. I could go on and on about the benefits, but I think you can tell by now that we strongly recommend the Macintosh LC for young children. We will be including more articles and curriculum activities related directly to this technology in future issues.

Our ACTT IV Conference was a huge success - thanks to the presenters, staff members, participants, and our keynote speaker! We were glad to see so many of you attend this year. For those of you who were unable to come, we've included the directions for making one of the items from the switch-activated Bunny Village and an article on the Music Mat. Have fun! Don't forget to register if you are interested in attending training or workshops this summer. It may be just what you need to expand your computer skills for next school year.

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him to maintain his visual attending while operating the computer?).

5. Does the child rely on his vision or his hearing to operate the computer?

Once the best position is determined, the type of input device and the way the computer will be accessed by the child should be addressed. Switches are available in many shapes and sizes and may be adapted for each child's individual needs. Choose an appropriate switch based on the child's abilities and needs and the switch's sensitivity, size, feedback, and durability.

Positioning the Computer

Positioning is equally important for ambulatory children. Since abilities in a classroom of children with severe disabilities vary greatly, conduct a careful assessment of each individual's needs.

Many children who are physically able to utilize the keyboard may find it overstimulating. Alternate input devices might be considered for these children. Some can use joysticks or touch tablets quite effectively; others might need a single switch device.

Discrimination between keys (especially when programs use keys located on opposite sides of the keyboard) may be difficult for some. Adding stickers or small overlays to the keys may be helpful, but stickers may be too distracting; the child may prefer to handle the stickers rather than use them as references.

If single switch use is most appropriate, using only the monitor and the switch (without the keyboard) should reduce excessive stimulation. The location of the color monitor should be carefully evaluated—especially if the child is prone to seizures. Observe the child's seizure activity both during computer use and throughout the day to make sure seizures do not increase with computer use. Computers may not be appropriate for all children.

If a child is able to use the keyboard, be sure he can comfortably reach the keys. The keyboard should be a little higher than the child's elbows. If the child rests his hands on the spacebar or bottom keys, raise his position in the chair or provide support for his wrists.

Once children have learned to use the computer in their "best" position, provide them with "computer time" when they are in different positions (in the prone stander, resting on the floor). Varying access positions provides opportunities for the children to control the computer environment with more freedom.

Appropriate Equipment Storage

Provide ample storage for all adaptive computer equipment and software where it is easily obtained yet out of the way. Depending on the children's disabilities and the extent to which peripherals are required, a variety of equipment may need to be stored and maintained.

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Choosing Appropriate Switches

Choosing the most appropriate switch for a particular child depends on the child's abilities and needs and the switch's sensitivity, size, feedback, durability, and placement.

Ability. First consider the child's physical ability to activate a switch. If she is able to reach forward to press a switch with her hand, then many tread-like switches may meet her needs. If her main physical ability is in head movement, a mercury switch placed on a head band, or a soft tread-like switch mounted on her headrest may be appropriate. Physical ability also includes the amount of pressure she is able to exert on a switch.

Sensitivity. If the switch requires more pressure than the child can exert, either use a more pressure-sensitive switch or make it more sensitive by removing a spring or other cushioning material.

Size. Consider the size of the switch press surface. A child who has little fine motor control requires a larger surface to consistently activate the switch. Smaller switches are appropriate for children who have good fine motor control.

Feedback. Some children respond better to a switch that provides auditory or tactile feedback. AbleNet's Big Red switch "clicks" when pressed. The Vibrating Plate Switch (Toys for Special Children) provides tactile feedback. Children often respond well to the vibration, pressing first to feel the vibration and later to control a software program.

Durability. Since some children are unable to determine the pressure needed to activate a switch, a switch's durability becomes another important attribute. Select switches that withstand heavy pressure or pounding for children who exert more pressure than necessary.

Placement. If the child demonstrates reliable hand movement, place the switch on a table or tray within easy reach. If he is able to cross midline, test different switch locations to determine how far the child is able to reach to activate the switch comfortably and consistently. Secure the switch with a swith holder, suction cups, clamps or, non-slip matting.

This information was taken from Macomb Project's Technology Team Assessment Process (TTAP) training package.

Computer Environment continued from page 3

Commercial equipment is expensive, and staff who use it should be trained to care for it properly. Train the entire staff on equipment storage, use, and maintenance before opening a computer center in your classroom.

Store each device in a clearly labeled, covered container or closet to prevent dust from settling on it. The correct name of each piece of equipment, its function or purpose, and the names of the children who are using it should be written on a label which can be easily read.

Computer equipment alone is not "magic" that makes a difference for a child with multiple or severe disabilities; rather it is the way the computer is used which determines its effectiveness as a classroom tool.

The more equipment available for use, the longer it may take to locate, connect, and change the adapted devices to meet the needs of each child who uses the computer.

Loosely coil the peripheral cord around a piece of cardboard and secure with a rubber band. Often, cords wrapped directly around a switch are too tight,causing the switch to remain "on" and damaging the switching mechanism.

Wipe peripheral devices with a clean damp cloth periodically to clean them and prevent them from sticking. Use keyboard covers when necessary to prevent damage to the keyboard from children who drool.

When equipment is sent home with children, provide good modeling for parents by the way that you pack the equipment. In addition, conduct workshops to familiarize parents with the computer equipment so they will feel comfortable using it at home with their children.

Teaching Strategies

Computer applications for children with severe disabilities are flexible and powerful. Not only does the computer provide a medium which even the most impaired child can manipulate and control, but it also establishes an equalized interaction with others in the environment. The teacher now has a functional way to meet the needs of students. However, computer equipment alone is not "magic" that makes a difference for a child with multiple or severe disabilities; rather it is the way the computer is used which determines its effectiveness as a classroom tool.

Software Availability

Software which enables a child with disabilities to make choices, form decisions, develop responsibility for his actions (software provides natural or logical consequences for choices made), and acquire problem solving strategies which are transferable from one situation to another is ideal for the child who has not been able to experience this form of learning. **Good Leads for Software Needs**, published by Project ACTT, contains an annotated listing of software which can be used creatively with young children with disabilities.

Programs which help children develop general thinking skills, control their environment, and participate in equalized play are as likely to be found in software designed for the home market as well as for the education or special education market. This software may need to be customized for a child with adaptive input devices. Remember that the effectiveness of a software program relies on the teacher's creative use of it and the supporting computer-related activities.

Group or Individual Work

One feature which makes computer use so flexible is that it may be used effectively with an individual child or with a group of children. In classrooms for children with severe disabilities, many curriculum goals are developed for individual instruction. The staff/student ratio is generally very low, which makes this type of delivery system feasible. Using software "one-on-one" (one computer, one teacher, and one child) is often necessary to insure that relevant goals are met. Individual computer sessions can confirm the appropriateness of the targeted goals, facilitate the adapting of program content to meet specialized needs, and allow for accurate documentation of child performance.

The computer is infinitely patient. It does not get frustrated, provide too much assistance, or require the pressure of a personal relationship ("if I make a mistake, I will upset the teacher"), and therefore provides a nonthreatening learning environment.

However, using the computer with large or small groups is a very effective way of encouraging the development of social skills. When children spend most of their days interacting primarily with adults on an individual level, they may not develop appropriate social skills. Since most of their day is adult-directed, they have few activities which they control. Learning as a result of their own actions is, therefore, less likely to occur.

Competition among children, especially children with special needs, has become controversial. But what about a child who has few opportunities to compete? Self competition, challenge,

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and curiosity are all healthy forms of competition. Using the computer in a group can help a young child experience positive forms of competition and develop social strategies based on interaction with other children.

Other experiences such as learning to work with another child to accomplish a goal (two children, each with a switch, control one computer program), support another child's efforts as on a team, and for very involved children, being aware that there are other children in the room, can all be functional goals.

Opportunities for equalized play with another child are also beneficial. Imagine a child with physical restrictions being able to play an arcade game with a single switch for the first time in his life.

Children should also be given an opportunity to use the computer independently. Initiating an action may be a new experience for many children. Using the computer autonomously can help young children become risk takers. If they do not press their switch (or a key), nothing happens. No one cues them, begs them, or provides them with answers. The relationship is strictly between the computer and the child. If a mistake is made, the machine cues the child and he can correct it by himself. Observing a child using the computer alone can provide new information about him which might be useful in developing educational programming goals.

Staff

With so many consultants and support staff involved in determining the best goals for each child, it is crucial that staff be well trained on how to use the computer and on how to integrate software into the educational goals of each child. All staff who are responsible for carrying out instructional goals should be aware of possible functional computer applications for each child. Use the computer as a flexible, functional tool to provide a young child equalized opportunities for interacting with his environment.

Summary

Computer technology provides a way to communicate and participate in communication for a nonverbal child, a way to write or draw for a physically impaired child, a way to interact and control the environment for a child with multiple disabilities, a way to play with other children in an equalized manner, a way to help a child develop ownership of responsibility, and a way for him to participate more fully in life.

Use the computer as a tool to develop the strengths of the individual child. Don't dwell on what a child is unable to do, but build from his existing skills and capabilities.

Resource Catalog Includes Curriculum

The National Easter Seal Society has a Resource Catalog with products to help implement The Americans with Disabilities Act. Products include brochures, posters, post cards, video and audio cassettes, books, and a curriculum. The curriculum, "Friends Who Care," is for elementary students. It sells for $25 and includes a teacher's guide, activity sheets, posters, bookmarks, and a 45 minute video tape. The curriculum explores the range of disabilities within vision, hearing, developmental, learning and physical impairments. For a copy of the catalog or for ordering information, contact the National Easter Seal Society at 70 East Lake Street, Chicago, IL 60601; 312/726-6200 (phone) 312/726-1494 (fax).

Helpful Teaching Strategies for Classroom Computer Use

Whether using computers with an individual child or with a group, teaching strategies regarding the computer may vary from strategies used with other curricular media. Here are some helpful hints:

1. Allow the child to do as much as possible independently.

2. Use both computer and related activities to reinforce similar concepts.

3. If the child uses a switch or device other than the keyboard, encourage him to use it in other activities whenever possible.

4. Allow ample time for the child to respond before prompting. It may take some children longer to react or respond to the computer than to other instructional tools.

5. Know the software peculiarities and capabilities. The more familiar you are with it, the more creative you can become with applications.

6. Know which programs can be used independently by children and which ones require you to be present in order to reinforce the targeted goals.

Ke:nx Offers Variety of Input Choices

Ke:nx, the Adaptive Firmware Card equivalent for the Macintosh, is invisible to other software so Mac programs look and act as if the regular keyboard and mouse were used instead of an input method. A Ke:nx input will operate all standard software including word processors, spreadsheets, databases, games, and utilities.

Ke:nx offers many ways to input to the computer: Ke:nx OnScreen, auditory scanning, and a method for connecting a dedicated communication device to be the keyboard (these are new with the 2.0 version), single switch scanning, Morse code, expanded or mini keyboards, and assisted keyboards.

Ke:nx Create is the customizing program for Ke:nx input. It lets users change the number and appearance of "keys" or squares of their input method, add speech feedback, use icons, and design and print overlays for alternate keyboards.

A new icon library has more than 500 color and black and white icons, while the icon editor allows users to create original icons. There is also a library of digitized sounds. The 2.0 Ke:nx has the ability to record custom digitized sounds. MacinTalk speech is included.

Ke:nx can be used with all Macintosh computers except the Plus. It requires System 6.07/6.08 or System 7.0 (recommended), a hard drive, 2 MB RAM. The price is $780.

Registered Ke:nx users receive the 2.0 upgrade free of charge.

Contact Don Johnston Developmental Equipment, Inc., P.O. Box 639, 1000 N. Rand Road, Bldg. 115, Wauconda, IL for more information. 800/999-4660.

ASSISTIVE TECHNOLOGY INSTRUCTIONAL UNIT FEATURES VIDEOTAPE, SLIDES, CURRICULUM

"Assistive Technology in the Classroom" is a comprehensive three-hour instructional unit designed for potential and practicing educators who will be using assistive technology with children with disabilities in integrated classrooms. The materials can easily be adapted for use in workshops and presentations for parents, agency personnel, and other interested groups.

The unit addresses the use of assistive technology in pre-school, elementary, and high school classrooms. Six sections in the curriculum are designed to be used separately or with others in a sequence structured to meet the needs of the audience and training schedule. The unit includes the need for assistive technology by students, technology applications, selection and assessment procedures, and definitions for vision, hearing, mobility, environmental control/adaptation, augmentative communication, and cognition.

The instructional unit, which costs $150, contains a 113 page curriculum guide, a computer disk, a 14-minute open-captioned videotape, 95 slides, and a short audiotape which contains voice samples of various augmentative communication devices. The videotape may be purchased separately for $30.

Mail orders to Nebraska Assistive Technology Project, Department of Education, P.O. Box 94987, Lincoln, NE 68509. Phone 402/471-0734.

Software Review

"Millie" Combines PreMath Learning and Fun

by Letha Clark

Edmark's **Millie's Math House** is a discovery program that helps children acquire premath skills. Millie's main room offers six learning activities. "Little, Middle, and Big" asks the child to compare and match sizes. The child matches different shoes (sizes and styles) to one of three different characters.

"Build-a-Bug" gives the child the opportunity to hear and see numbers and the corresponding quantity. Eyes, ears, spots, antenna, tails and legs can be added to the bug in the number determined by the child. Each addition is heard by the child (five eyes). The final bug can be printed.

The child can identify and match geometric shapes in "Mouse House." Original designs can be created or a child can follow a blueprint and the finished mouse house can be printed.

Numeral recognition skills are increased when a child chooses the "Number Machine." By pressing a key on the number machine, a child causes that number of crazy critters to pop out of the drawer and count off.

"Bing and Boing" helps a child recognize patterns and sequences. Patterns can be created or completed, visual and audio cues are included in this activity.

The "Cookie Factory" increases critical thinking skills and develops counting abilities. Cookies are decorated with jelly beans and deposited in the correct bin or a specific number of jelly beans are added to the cookie. If the requested number of candies is added to the cookie, Harley gets the cookie. If too many or too few are counted out, then Froggy gets to eat the cookie.

An excellent premath program, **Millie's Math House**, provides hours of entertaining learning for even the youngest child. It is available from Educational Resources (800/624-2926; 708/888-8300) for $34.95.

Curriculum ACTTivities

Where Did My Cows Go?

The following curriculum activity was taken from **Buidling ACTTive Futiures: ACTT's Curriculum Guide for Young Children and Technology. Part IV: Severe Disabilities Curriculum Activities**

Content Area: Communication - beginning and intermediate scanning skills

Child Objectives:

1. Wait for cow to appear on the monitor.
2. Visually track the cow horizontally, then vertically on monitor.
3. Press the switch at the appropriate time.
4. Learn scanning skills needed for communication.
5. Learn that there is a consequence to any communication attempt.

Materials:

Software, **Catch the Cow** (Computerade Products)
Switch
Switch Interface or Input Box
Plastic cow figures and plastic fencing

Procedures:

Related Activity:

Set up a play environment with plastic cows and fences. Conduct an activity to help the child focus on the cow's movement across an area of a table or floor. Make a long fenced-in area with an opening at each end. Move the cow from outside of the fence, into the fenced area and out the other end. Give the child a switch attached to a tape recorder which will say "stop" when activated. Encourage the child to press the switch to tell the cow to stop before he gets out of the fence again.

As the child becomes familiar with the activity, progressively shorten the fenced area, so that she is required to watch and press her switch a little faster.

Computer Activity:

1. Select the "Pretest: Stop the Cow" option in **Catch the Cow** to determine the starting point for using the program with the child.

2. Explain to the child that she needs to press her switch when she sees the cow get into the box or fence so she can keep him. If she presses her switch when the cow is outside the box she will lose all her cows.

3. Encourage her to get lots of cows at the bottom (10), then there will be a different activity with the cows. The pretest could be stopped before the 10 cows are acquired if the child has difficulty pressing appropriately to keep the cows. After 10 cows the pretest is automatically completed. Data on average response time, slowest and fastest times, and the recommended scan speed are given.

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4. Once the child has mastered the pretest, play "Catch the Cow" which will present horizontal scanning, vertical scanning, and a combination at progressively difficult levels. Determine a goal for the child during each session. Keep records on the level achieved each time.

Variation:

Another program which could be used for beginning and intermediate scanning skills is **Learn to Scan** (Don Johnston).

Helpful Hints:

Since it may take a child a long time initially to accummulate ten cows for the pretest, set a goal with the child of two or three to begin with. Stop the activity after the goal has been reached. Increase the number as the child becomes more familiar with the scanning and switch pressing. If the child is upset about losing the cows, tell her a story about where they may be and how they need her help to come back. This activity teaches the child that her communication attempt, pressing the switch, has a consequence.

Adaptations:

Visual Impairment: Since the cow makes a slight beep as it moves across the screen, the child could listen and count the number of beeps before pressing his switch to catch the cow. This activity would only be appropriate if the child understands the concept of numbers and counting. The child would know when an inappropriate switch press was made by the negative beep.

Auditory Impairment: Focus on the visual movement of the cow across and down the screen. Use signs to talk about the cows and how many the child needs to catch.

Motor Impairment: Select an appropriate switch to meet the child's needs. Position the switch and monitor so that the child can respond comfortably.

ACTT Summer Training Set for June and July

Project ACTT is hosting technology training from June 7 -11 and July 26-30. Agencies interested in replicating the ACTT technology model for young children with disabilities are invited to inquire about this training and the requirements for replication. Training fees are waived for participants whose agencies agree to replicate the ACTT model.

Other individuals interested in learning about curriculum adaptations and activities, computer set up, adaptive peripherals, and software evaluation for the birth to three, preschool, and severe disabilities populations may attend training for a fee. The week includes opportunities to preview commercial and public domain software, to copy public domain software, to create curriculum activities, and to construct a variety of switches.

Credit from Western Illinois University is also available for the training. Tuition and fees must be paid to WIU, even if participants are from a replication site.

For more information, contact Linda Robinson, ACTT Coordinator, 27 Horrabin Hall, Western Illinois University, Macomb, IL 61455; 309/298-1634; 309/298-2305 (fax).

HyperStudio 3.1 Upgrade Offer

If you own an old version of HyperStudio, you can get a free version of the HyperStudio 3.1 update. This updated version is compatible with Apple Computer's new System 6.0 operating system for the Apple IIGS.

HyperStudio 3.1 features work directly with the new system version. You need 1MB of RAM and one 3.5" disk drive. The new version features a new animation method and a new scripting language which helps beginners create more advanced programs.

Getting your free upgrade is easy: just return all six HyperStudio 3.0 disks to the company and request the 3.1 version. Roger Wagner Publishing, Inc., 1050 Pioneer Way, Suite P, El Cajon, CA 92020; 619/442-0522.

ACTTive Teachers

Early-On Program Reinforces Off-Computer Stories with PowerPad Activities

Project ACTT is especially proud of The Franklin Williamson Human Services Early-On Program in West Frankfort, IL, an ACTT site which serves approximately fifty children. Program staff are excited about computer applications and creative when it comes to integrating the computer into other class activities.

The Early-On Program provides both home-based and center-based services. The Birth to Three Program serves all types of disabilites. Center-based services are provided at Link-N-Learn, an integrated preschool program serving children with disabilities ages 2 - 3 years and typically developing children ages 2 - 5. The computer is used in the daycare program by all children repeatedly and is an often-requested free play choice.

Staff consists of a Program Manager, two Child Development Specialists, two Teachers' Aides, a Speech Therapist, a Family Therapist, and an RN.

The Early-On Program has been an ACTT site since staff participated in training the summer of 1987 after attending an ACTT-sponsored regional switchmaking workshop. Equipment includes an Apple IIe, an ImageWriter, Muppet Learning Keys, Touch Window, switches, and PowerPad. Some children are using the PowerPad as a starting communication board as well as for group activities.

Diane Short, Child Development Specialist, tells ACTT that three software programs seem to get the most use. All the boys enjoy **Master Blaster** (ACTT) because the noise of the rocket as it blasts off is reinforcing to them. **Peek & Speak** (ACTT) is popular because Early-On uses the PowerPad a great deal, and the children all enjoy PowerPad software and activities. A third popular program is **Hodge Podge** (Dynacomp) because it uses the keyboard and something fun always happens no matter which key is pressed.

Program Center staff have developed a simple set of sequence stories that include topics such as Taking A Bath, Going to Bed, and Trip to the Zoo. Each story is drawn out in four or five steps and the children both physically act out the story and practice telling the story. After the children have practiced telling the story several times, a booklet is made and the children dictate the story to a teacher. They then color and "sign" their story and take it home to share with parents. The sequence story is made into a PowerPad overlay using ACTT's **Peek & Speak** program. This activity is then available during free play to reinforce the work done during circle. The children really enjoy "hearing" the story repeatedly.

Diane says the most rewarding part of her job is "watching the children as they finally master a skill and begin to enjoy what they are doing." Project ACTT has helped by providing the Program with a variety of technology options for the children.

Company Plans Virtual Theatre

RJ Cooper & Assoc. from Dana Point, CA, are experimenting with a "virtual reality theatre" which they hope will be available in a few months. Their goals are to give the user a virtual experience at something s/he might not be able to do in real life and to allow the user to experience virtual movement and choicemaking through a simulated, controllable, community. The company's catalog will have more information as work progresses. If you want a catalog, write 24843 Del Prado #283, Dana Point, CA 92629.

Disk Recycling

What do you do with your old software disks? Covenent Recycling will buy back quantities of used software disks and recycle the used disks. The group pays 2 cents for each 5.25" disk and 6 cents for each 3.5" disk. Half the money goes to one of five children-oriented charities in your name; the other half goes to you. For more information about the program, contact Covenent Recycling Services, P.O. Box 2530, Del Mar, CA 92014; 619/792-6975.

Assistive Technology CAN GO HOME!

The following information was provided by the Illinois Assistive Technology Project (IATP) and United Cerebral Palsy Associations.

Can assistive technology aids or equipment be limited to in-school use? A policy letter from the federal Office of Special Education (OSEP) clearly states no.

The request for clarification of amendments to Part B of the Individuals with Disabilities Education Act was made by a parent who asked that a CCTV (closed-circuit television—an electronic enlargement device that enlarges images and increases contrast) be provided to her child for home use.

In a letter dated November 1991, Judy Schrag, director of OSEP, stated, "if the Individualized Education Plan (IEP) team determines that a particular assistive technology item is required for home use in order for a particular child to be provided FAPE [free appropriate public education], the technology must be provided to implement the IEP." School systems cannot categorically deny any request that assistive technology go home for reasons including inadequate insurance coverage.

Lewis Golinker, Attorney for Legal Services of Central New York and New York Lawyers for the Public Interest, at a recent training in Washington, DC explained that regular education children take home district-owned materials frequently—band instruments, books, scissors and glue to name a few. They take them home to get maximum benefit from the educational program they receive. In exactly the same way, children with special needs may also need to take home school-owned materials to practice what they are learning in school.*

An earlier Schrag letter issued during 1990 stated that there is a clear right to assistive technology for a child with a disability as determined by the IEP team on a case-by-case basis. A copy of this letter is available from IATP (800/852-5110).

Whenever an IEP contains a specific statement of the devices and services that are needed, it must include the nature and amount of those devices and services. The 1990 Schrag letter also noted that parents have the right to question assessment and placement decisions, inquire about assistive technology to achieve specific skill levels, seek an independent evaluation and appeal any aspect of the IEP when

continued on page 12

Action Steps at Local Level

1. Share the information in the article with parents, therapists, educators, and administrators.

2. Arrange for a meeting with local level special education director to discuss a process to insure access to assistive technology:

a. will notice be provided to parents of the right to assistive technology, *including the right to take it home?*

b. to what extent will parents and the child's therapists be involved in the assessment process and the determination of technology needs, *including the need to take technology home*, to be documented and responded to on the child's IEP?

c. will a process be developed to inform parents of students whose IEPs for the coming year have already been determined, *that those IEPs may be modified to address the need for technology at home?*

d. when there are disagreements between the child's parents and school system personnel, what process will be in place to conduct further or an independent evaluation of technology needs?

e. will the scope of technology interventions be considered to respond to problems of: learning, mobility, communication, interaction with non-disabled students in the least restrictive environment, both during school and after school hours?

3. If the above list of issues are not worked out to your satisfaction, consider:

a. contacting the state director of special education to provide technical assistance;

b. calling or writing Dr. Judy Schrag, Director, OSEP, 330 C Street, SW, Washington, DC 20202-2736; 202/205-5507; to intervene and assist in resolving problems.

4. Decisions must be made on an individual child basis, not for a group of children or a particular type of disability. *Cost and availability of devices and/or services cannot be a part of the decisionmaking process to meet a child's right to a free appropriate public education.*

The above information was taken from UCPA's August 7, 1992 Action Alert. See page 12 for Action Steps at the State Level.

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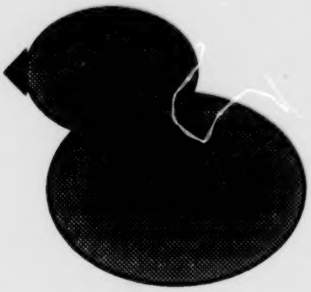
ACTT IV featured a "Switch Activated Bunny Village" (see photo) complete with bunnies, chicks, Easter eggs, lambs, and other springtime toys operated by a variety of switches (tread, pillow, mercury, clothespin). Participants were able to choose a switch to make during the conference switch workshops. One option was to adapt a chirping chick toy for switch use. The directions follow.

Chirping Chick



Tools

Soldering iron
Rosin Core Solder
Small Phillips screwdriver
Wire strippers
Scissors

Materials

1 Bunny Towne Chirping Chick
1 1/8' jack (Radio Shack #274-248)
2"-3" piece 22 or 24 gauge polarized stranded wire
Electrical tape

Procedures

1. Remove the two small screws from the base of the chick.
2. Take the 2"- 3" piece of wire and separate the two strands with scissors (be careful not to cut into the copper).
3. Strip 1/8" to 1/4" of insulation from both ends of both pieces of the separated wires.
4. Locate the two copper rivets on the base of the chick which activate it and solder one end of the wire to one rivet (on the inside of the chick).
5. Repeat the procedure with the second wire and the second rivet.
6. Solder the other end of one wire to the long negative terminal on the jack.
7. Solder the other end of the second wire to the short positive terminal on the jack. Wrap the positive terminal with a small piece of electrical tape.
8. From the inside, locate the hole in the side of the hard plastic housing of the body of the chick. Remove the fur covering the hole with scissors.
9. Remove the nut and washer from the jack and insert the jack from the inside through the hole in the side of the chicken. Replace the washer and nut.
10. Replace the base on the chicken using the two screws removed in step one.

HOP UP TO THE

TOP RIGHT: Wire strippers are used to remove insulation from the ends of wires that will connect the switch to a toy. TOP LEFT: Sue Mistrett, ACTT IV Keynote Speaker, cuts foam for padding in a tread switch. BOTTOM: The switch-activated Bunny Village featured springtime and Easter toys, as well as software with a "rabbit theme," operated by different switches. A workshop was held during the conference so participants could construct their own switches.

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Action Steps at State Level

1. Arrange a meeting with your state director of special education.

2. Seek an acceptable resolution of the following issues:

a. what steps will the state agency take to insure compliance by all local education agencies in the state with the OSEP policy letters on the *right to assistive technology, and the right to take that technology home?*

b. will a set of model or instructive guidelines be developed on a state level to assist compliance of local education agencies?

c. what monitoring of local school systems will be done to insure LEA compliance with these important policies?

3. Consider the establishment of a task force that includes parents, therapists, non-profit providers, and local school system representatives to develop compliance guidelines. Issues to be addressed include:

a. adequate notice to families about the right to assistive technology, *including the right to take technology home;*

b. identification and assessment process;

c. building system capacity and competencies to provide appropriate services (training and equipment purchases);

d. appropriate integration of technology as a means to improve learning, mobility, communication, and interaction with non-disabled peers, both during and after school;

e. dispute resolution;

f. transition of technology supports after a child ages out of special education.

4. If you are not satisfied with the resolution of these issues, contact Dr. Judy Schrag, Director, OSEP.

The above information was taken from UCPA's August 7, 1992 Action Alert.

***Assistive Technology* continued from page 10**

agreement cannot be reached with the IEP team.

The ability to take technology home is tied to the IEP. It is therefore especially important at this time of year when many school personnel and parents are reviewing IEPs for the upcoming school year, that parents, teachers, therapists and school administrators know that technology can go home.

The ability to take technology home is tied to the IEP.

Parents can use this information to help their children with disabilities by making sure their local special education district and disability and parent groups are aware of this policy. If parents believe taking an assistive device home is essential to giving their child equal opportunity to benefit from public education, they can request an IEP meeting and ask that it be stated in their child's IEP.

If you encounter difficulty implementing this national policy, contact Michael Morris or Christopher Button at UCPA 800/USA-5UCP.

*Lewis Golinker, Focus on Early Intervention and Special Education, RESNA Funding Assistive Technology Conference. November 13, 1992, Washington, DC.

National Group Speaks on Behalf of Children with Special Needs

Family Voices is a group composed of families throughout the U.S. who have children with special health needs and of caregivers, professionals, and friends whose lives have been touched by these children. Until Family Voices was formed, there was no organized family voice to speak on behalf of children with special needs. Family Voices believes that families, caregivers, professionals, and friends are responsible for speaking on behalf of children with special needs so they can receive basic and specialized health, education, and social service supports that value and respect them.

Family Voices will help shape health care reform at local, state, and national levels and will use the expertise of their members to inform national dialogues and share wisdom across state lines. The group will develop and distribute a series of working papers, bulletins, and information sheets to inform all about health care reform. Family Voices expects to form partnerships with professionals and with other state and national organizations to make sure the voices of families are heard and the children's needs are met.

Each state has two Family Voices coordinators who will stay in contact with families in their states and with the national Family Voices organizers. The national address is Family Voices, Box 769, Algodones, NM 87001.

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FDLRS Music Mat Big Hit At ACTT IV

by Joyce Johanson

At the TAM Conference in January, two ACTT staff members attended a session given by Eileen Pracek and Becky Atwood of FDLRS/TECH. Their session featured Becky's creation, the Music Mat. Made from two flannel-backed 52" x 90" vinyl tablecloths, the Music Mat features 20 notebook switches connected to an adapted keyboard.

Becky explained the concept behind her creation, showed videotapes of children in wheelchairs wheeling across the Music Mat, shared plans for making a Music Mat, and encouraged everyone to go home and make one of their own.

So we did!

Becky told us that by the end of February, a kit containing all necessary materials for assembling a Music Mat would be available. However, since we needed our Mat for the ACTT Conference, we decided not to wait (in case she was wrong about the date of availability) and we purchased the necessary materials from the local Wal-Mart and Radio Shack stores.

Two student workers were assigned the tasks of cutting aluminum and file folders for the switches and for organizing all needed materials. Then one Saturday, a group of us spent three hours in an assembly-line workshop, making switches, applying tape, and otherwise getting our Music Mat in working order.

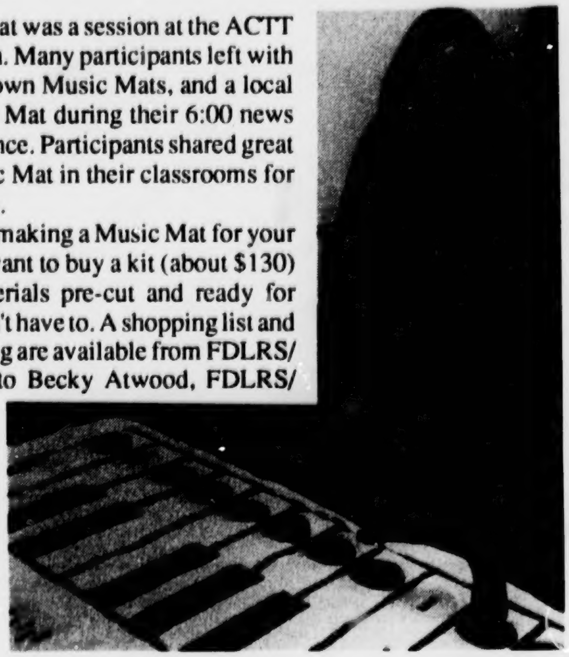
The Music Mat was an immediate success at Macomb Projects with the adults, so we took it to the preschool center in our building and to a birth to three program in Macomb to see if young children had as much fun with it as adults did.They had a great time; they ran, tip-toed, sommersaulted, and crawled on it They played "music" together and the shy children learned what to do by watching the more daring children.

Our Music Mat was a hit!

The next stop for the Mat was a session at the ACTT IV Conference in March. Many participants left with plans for making their own Music Mats, and a local TV station featured the Mat during their 6:00 news spotlight of our conference. Participants shared great idea for using the Music Mat in their classrooms for activities besides music.

If you are interested in making a Music Mat for your classroom, you might want to buy a kit (about $130) which has all the materials pre-cut and ready for assembling, but you don't have to. A shopping list and directions for assembling are available from FDLRS/TECH. Send inquires to Becky Atwood, FDLRS/TECH, 2700 Saint Johns St., Melbourne, FL 32940.

The adapted organ is available for $130 from Exceptional Computing, 450 NW 58th St., Gainesville, FL 32607.



Mac Software Plans Vocabularies for AAC Users

Don Johnston Developmental Equipment, Inc: has a new Macintosh program for speech pathologists, communication specialists, educators and technology specialists. The AAC Vocabulary Manager helps plan and manage vocabularies for AAC users.

Many vocabularies, or lists of words, have been compiled for AAC users. One group of lists is a starting, or base, vocabulary. The AAC facilitator selects a starting vocabulary according to the age of the AAC user and where the vocabulary is going to be used, at school or at home, for example.

Topical word lists are a second category. These lists of words are centered on specific topics, such as arts and crafts.

The third category of lists is personal words and custom lists which are compiled by interviews with family members and others.

All of the selected lists are merged to create a composite list, the entire vocabulary, for the AAC user.

The AAC Vocabulary Manager sells for $85 and requires Macs with system 6.0 or higher, a hard drive, 1 MB RAM and HyperCard 2.1 or higher.

Contact Don Johnston Developmental Equipment at 800/999-4660 for further information.

New Innocomp Address

Suite 302, 26210 Emery Road
Warrensville Heights, OH 44128
216/464-3636; 216/464-3638 (fax)
800/383-8622

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Project TIP to Host Five Summer Technology Training Workshops

The Technology Inservice Project (TIP) is hosting five summer workshops at Western Illinois University. Topics for the workshops are "General Adult Productivity Software Overview," (June 14) which will look at 40 different Macintosh and Apple programs; "Adaptive Firmware Card," (June 15) which focuses on applications for the AFC G32 model for the IIGS; "Word Processing and Page Layout;" (June 16) which provides training on two important adult applications; "Applications for Children with Severe Disabilities;" (June 17) which offers insight into using computers and adaptive technology with children who have severe disabilities; and "Family Involvement" (June 18) which suggests practical ways to involve families in your technology activities.

Registrations must be received two weeks before each workshop. There are no fees for the workshops; however, if a participant wishes to take the workshop for credit, tuition must be paid to WIU and advance notice must be given to Project TIP.

Contact Project TIP at 27 Horrabin Hall, WIU, Macomb, IL 61455; 309/298-1634 for complete workshop descriptions and registration information.

Low Cost Apple II Software

Looking for low-cost software for your Apple II? Contact AV Systems, Inc., P.O. Box 60533, Santa Barbara, CA 93160; 805/569-1618. Ask for the free catalog and demo disk. The programs without manuals cost $9.95 and can be copied. Those requiring manuals are $19.95. Upgrades are available regularly for $1.

Calendar of Conferences

June 23-26, 1993: World Conference on Educational Multimedia and Hypermedia in Orlando, FL. Contact AACE, P.O. Box 2966, Charlottesville, VA 22902.

June 26, 1993: Educational Institute on Assistive Technology and Augmentative Communication in Orono, ME. Contact Sarah Timmers, Center for Community Inclusion, UAP, 5703 Alumni Hall, Rm. 117, University of Maine, Orono, ME 04469-5703;207/581-1084.

June 27-30, 1993: National Education Computing Conference, "The Magic of Technology" in Orlando, FL. Contact Susan Gayle, 1787 Agate St., Eugene, OR 97403; 503/346-2834.

September 21-22, 1993: Educational Resources' 4th Annual Emphasis on Technology Conference in Westmont, IL. Contact Maureen Dvorak, Conference Manager, Educational Resources, 1550 Executive Drive, Elgin, IL 60123.

October 14-15, 1993: Quincy Conference 21 in Quincy, IL. Contact Quincy Conference, 1444 Maine Street, Quincy, IL 62301; 217/224-6770.

November 18-21, 1993: ASHA Annual Convention in Anaheim, CA. Contact ASHA, 10801 Rockville Pike, Rockville, MD 20852; 301/897-5700.

SHAREWARE AND FREEWARE FOR THE MACINTOSH

"The Mac Shareware Emporium" by Bernard David and Maria Langer provides detailed reviews and information on hundreds of shareware and freeware programs so you can put together a software library of applications, fonts, utilities and games for very little cost.

Information about each program includes a detailed description and a sample screen illustration, cost, and author contact information. You also learn how to cut costs while building a shareware library; obtain, register, and get support for shareware and freeware products of all kinds; and evaluate product sources for quality, support, and virus protection.

Bonuses included with purchase are 1) a rebate on the Hayes 2400 baud modem; 2) a free introductory membership from CompuServe; 3) a discount from the Boston Computer Society; 4) a bonus gift from the National Home & School Macintosh User Group with membership.

David is the author of "The Entrepreneurial PC" and co-author of "Inside Track to the Mac." Langer is a Macintosh consultant and editor of "Macintosh Tips & Tricks," a monthly newsletter.

"The Mac Shareware Emporium" is offered to educators for $25 plus $3.75 shipping & handling. Call 800/962-7717 to order. Outside the US, call 301/478-9342.

Congratulations Carol McKnight from Lawrence, MI, winner of the ACTT IV Evaluation Drawing! Carol chose **Building ACTTive Futures: ACTT's Curriculum Guide for Young Children and Technology** as her prize.

1993 Apples Education Series: Technology in the Classroom

Watch the TV schedules for the 1993 showings of "Imagine: The Apple Education TV Series." Each of the four programs will air twice.

This year's series concentrates on the integration of technology into K-12 classrooms. The four programs are "Teacher Access to Computer Technology," "Technologies for Language and Global Literacy," "Multimedia and Education," and "Technology and the Evolving Classroom."

The series is free and is offered via satellite downlink, cable and videotape. More information and earlier year's programs are available from Mind Extension University, Englewood, CO; 800/777-MIND.

Disabilities Directory

The 1993-94 issue of *The Complete Directory for People with Learning Disabilities* is now available. The publication includes over 600 pages containing 6200 resources. Billed as a "one-stop source book for people of all ages with learning disabilities and those who work with them," the book sells for $125. Order from Grey House Publishing, Pocket Knife Square, P.O. Box 1866, Lakeville, CT 06039.

Computer Prizes

The Computer Learning Foundation each year offers a variety of competitions and awards prizes of computers, software, technology equipment, and certificates. Information about the competitions and the Foundation's resources can be obtained from AppleLink (AppleLink path: K-12 Education, Education Resources, Associations, Computer Learning Foundation).

Guide To Switch Making

A Switch To Turn Kids On, a guide to making homemade switches, gives information on constructing a battery interrupter and tread, pillow, and mercury switches. This product lists materials and tools needed for switch construction, gives step by step illustrations for making switches, and lists company resources for purchasing switches and materials. Order for $7.95 from Macomb Projects, 27 Horrabin Hall, WIU, Macomb, IL 61455.

Dunamis SuperPort Eliminates Pin Breakage

Dunamis has created a new Apple II-PowerPad interface, the SuperPort, which features a new 9-pin PowerPad cable which eliminates cable pin breakage. SuperPort is actually two ports: first it is a PowerPad port with a 9-pin connector; second it is a switch interface box with two 1/8" receptacles. There is also a 16-pin receptacle on the SuperPort for those who want to continue using the 16-pin PowerPad cables.

Dunamis will continue to sell the PowerPort but encourages PowerPad users to purchase the SuperPort because it provides a better interface solution.

SuperPort has a 16-pin ribbon cable which connects into the IIe or IIGS game I/0 port. Although it features a 9-pin PowerPort cable, it was not designed to be compatible with the TouchWindow, Muppet Learning Keys, or other 9-pin devices.

SuperPort with the 9-pin cable retails for $59.95. The 9-pin cable can be purchased separately for $14.95.

For more information, contact Dunamis, Inc., 800/828-2443.

Popular Products from Macomb Projects

If you're looking for software for a cognitively young child, consider **Switch 'N See**, software designed to reinforce the cause and effect relationship of a switch press. When the switch is pressed, a rag doll appears on the monitor and dances to "Skip to My Lou." Switch press timings are recorded on the disk and may be printed in hard copy. The software sells for $11.95.

Master Blaster can be used with one child to check for visual attending or with two children as a game to see who can launch first with a switch press. There is also an option for adding a "beep" as an auditory cue. The program is used with an Echo and cautions against too early of a switch press ("Jimmy (you enter the child's name) release your switch."). **Master Blaster** records which child presses the switch first and the response time. Records may be printed. The program costs $11.95.

The Best of ACTTion News (now **ACTTive Technology**) is a compilation of important technology-related articles printed in the publication from 1989 - 1992. You'll find practical advice and creative ideas for using computers and assistive technology with young children with disabilities. The book sells for $19.95.

These products are available from Macomb Projects, 27 Horrabin Hall, WIU, Macomb, IL 61455. Purchase orders are accepted. If you are interested in other products, write or call (309/298-1634) and request a free catalog. The catalog features more software, books, and videotapes.

ACTTion News Subscription Form

Name ____________________

Agency ____________________

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City ____________________ **State** __________ **Zip** __________

For a year's subscription to *ACTTion News*, complete this form and return it with a purchase order or check for $16.00 to Macomb Projects, 27 Horrabin Hall, Western Illinois University, Macomb, IL 61455.

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ACTTive Technology

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VOLUME 8, NUMBER 3 **Summer 1993**

Logo Has Place in Early Childhood Curriculum

by Patricia Hutinger and Joyce Johanson

Early childhood software abounds in today's market, creating exciting - and confusing - choices for teachers. While computers are becoming more commonplace in preschool programs, limited funds require careful software choices.

The best early childhood software allows children to explore and discover. It has no "right" or "wrong" answers, or if it does, children are told in a friendly way to "make another choice." Good early childhood software is playful and non-directive, creating an environment in which children can take chances or try something new. Good early childhood software can be used in a variety of ways by different children to achieve more than one result.

One program which especially allows for problem solving, logical and sequential thinking, social interaction, communication, and increased hand-eye coordination skills is Logo. A computer language created by Seymour Papert, Logo is thought by some to be too difficult or sophisticated for use by young children. However, Project ACTT[1] developed Instant Logo procedures which allow young children to use Logo easily. ACTT adapted the version of Instant Logo found on Terrapin's Logo Utilities II disk by reassigning the command keys for FORWARD, BACK, RIGHT, and LEFT on the keyboard in a diamond shape, with FORWARD at the top, BACK at the bottom, and LEFT and RIGHT on their respective sides.

Colored stickers with arrows pointing ↑, ↓, ←, and → were placed on the Y(FORWARD), B(BACK), S(LEFT) and K (RIGHT) keys. Children then had visual cues for pressing keys to move the turtle in any direction.

Then the excitement - and learning - began!

Introductory off-computer activities involved a path drawn on brown paper covering a large portion of the classroom floor. One child, following the verbal directions of his classmates, followed the path, turning right or left, forward or backward as they directed him toward the goal. Children took turns voluntarily and gave each other directions eagerly. Dramatic play, props, and costumes enhanced these off-computer activities.

Such introductory activities prepared the children for the Valiant Turtle, a turtle-shaped robot controlled by the computer and Logo program. The children pressed keys on the computer keyboard to move the robot along the path to his destination. Costumes were made for the Valiant Turtle so it became a variety of characters for this activity.

Not only did the children have fun, they also had opportunities to improve skills. They had to think ahead and plan (problem solving) the route the child or the turtle robot should take through the maze. They improved their understanding of directions. They communicated with each other to decide which key to press, and they took turns giving directions. Even the most shy children caught the excitement of the others and soon participated.

ACTT Instant Logo was used for other computer activities in a variety of ways. Simple mazes were drawn and photocopied onto overhead transparencies which were placed on the computer monitor. Pictures, stickers, and drawings were added to the mazes to represent popular stories or classroom themes. The children then pressed command keys to reach the end of the mazes.

Children worked alone or cooperated with other children to solve the mazes. They helped the Paper Bag Princess find her way to the Dragon; they helped Little Red Riding Hood find her way to Grandma's house; they helped a mother bird find her way to her nest with food for her babies, and a lost child find her way home.

Other maze activities involved common day-to-day activities: a visit to Dairy Queen for ice cream or to McDonald's for a burger and fries, a trip to the grocery store for milk or to the filling station for gas, an outing to the park to play on the swings or to the beach to build castles in the sand.

continued on page 3

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[1] Activating Children Through Technology, a project funded by the U.S. Department of Education's Early Education Program for Children with Disabilities.

From The Editors. . .

by Linda Robinson

As we all know there are many different ways we can use technology. Probably one of the least understood ways is using the computer as a "tutee." Children and adults can teach the computer, rather than being taught by it or using it as a tool for other functions. Computer "tutee" activities do take more planning on the part of the teacher, but the benefits to the children are well worth it. One program, such as Logo (which is really a programming language), allows such a variety of creative uses that the benefits are not always apparent until you actually observe children using it.

Over the past nine years our staff have designed curriculum activities and observed preschool children in special education classrooms and Head Start programs using Logo. From the beginning, we realized what a powerful program Logo was. Robots, such as TOPO (as tall as a preschooler) and the Valiant Turtle, provided a means of control and movement of an object in space in a way a young child in a wheelchair may not physically be able to experience himself. Logo is a great equalizer among children. There is a role for every child in a Logo activity, whether it is pressing keys on the keyboard or areas on a touch tablet, moving along a maze on the floor, or giving verbal directions.

One area of Logo use which we have not explored, but that may be of interest to you is Lego Logo. Legos are combined with electronic components and software to create objects controlled by Logo commands. Older students or parents could build different objects, such as a car or small robot, which can then be operated by a child's key press on the computer. Children can also use regular Legos to create an environment for the mechanical object or build onto the object itself. We have experimented with the construction part of it, but have not used it with children yet. It does provide another creative avenue for Logo use.

For adults Logo is truly a programming language which means you can write a simple program with it that can be used by children. You could create mazes, similar to the ones in this issue, that are programmed in Logo and saved on disk so that they appear on the screen when you are ready for the activity in class. The path drawn by children as they make their way through the maze can then be printed or saved. If you would like more ideas on using Logo or robots after reading the articles in this issue, please refer to the Amazing Logo book from the **Building ACTTive Futures** curriculum. We provide philosophy, activities and procedures so that you can use ACTT Instant Logo in your classroom.

Another computer "tutee" program is **HyperStudio**, an authoring program which allows you to use pictures, videotape, recorded voice or sounds, music, and your own graphics to create activities. Young children can even be the "authors" since their images and voices can be the basis for the program. We have provided ideas on using this software in past issues. The exciting news now is that it is available for the Macintosh and you can use Logo with it!

We hope this issue gives you some ideas for exploring the tutee functions of technology. These programs could be the basis for the majority of your computer activities during this upcoming school year. As you begin to think about school again, remember that our Project serves as a resource, and we will be glad to help you with information or training.

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Logo continued from page 1

To study the effects of Logo use, Project ACTT randomly chose 30 children from the 68 preschool children with disabilities served by the Project. Fifteen of the children were in their first year with the Project; the other 15 were in their second or third year of computer use and had used Logo during their first year with the Project.

Following summer vacation when the children had had no experience with Logo, ACTT staff presented each group a series of six mazes on transparencies attached to the computer monitor. The mazes increased in difficulty (See Figure 1 on the following page) from very simple to very complex. Each child was given three trials on each maze.

Mazes 3 - 5 were complex mazes. Sixty percent of the second and third year participants were able to complete the complex mazes using the appropriate Logo commands to direct the Logo turtle through defined mazes to a predetermined goal. Forty-six percent of these children completed every maze. Those who completed mazes 3 through 6 demonstrated a high retention of Logo skills. Mazes 4 and 6 were completed in a specific sequential order as directed by the adult administering the test. If a child accurately completed a maze, s/he was given the next, more complex, maze. First year participants were not given mazes 4 through 6 because only one of them was able to complete maze 2. (See Table 1 below for the percentages of maze completion.)

Logo, with ACTT's Instant Logo procedures, is highly recommended as appropriate for the preschool classroom. Young children work - and learn - together to solve problems, and as an added bonus, they hone their social, communication, and problem solving skills. Most importantly, they have fun both during computer activities and reinforcing off-computer activities. Imagination, play, creative dramatics, music can all become part of classroom Logo activities.

Children with disabilities can easily become involved in classroom Logo activities. During off-computer maze activities, a classmate can follow other children's directions and push his friend's wheelchair through the path on brown paper maze. Switches can be connected to the computer and designated as FORWARD, BACK, RIGHT, and LEFT so the child who does not have the fine motor control to press a key on the keyboard can solve the mazes. Children without disabilities also enjoy pressing the switches to move the turtle along the maze.

Table 1: Percentage of ACTT Sample Preschool Children Completing Each Maze

Year 1 Participants (15)			Year 2 & 3 Participants (15)		
Maze	N	%	Maze	N	%
Maze 1	11	73%	Maze 1	15	100%
Maze 2	1	6%	Maze 2	13	86%
Maze 3	0	0%	Maze 3	11	73%
Maze 4	0	0%	Maze 4	9	60%
Maze 5a	0	0%	Maze 5a	9	60%
Maze 5b	0	0%	Maze 5b	9	60%
Maze 5c	0	0%	Maze 5c	9	60%
Maze 5d	0	0%	Maze 5d	8	53%
Maze 6	0	0%	Maze 6	7	46%

Logo definitely has a place in the preschool classroom and should not be overlooked when you are choosing software and planning accompanying activities. As Seymour Papert, Logo's creator, points out,

> ...I believe with Dewey, Montessori, and Piaget that children learn by doing and by thinking about what they do. And so the fundamental ingredients of educational innovation must be better things to do and better ways to think about oneself doing these things. I claim that computation is by far the richest known source of these ingredients. We can give children unprecedented power to invent and carry out exciting projects by providing them with access to computers. (Papert 1980, p. 161)

References

Papert, S. (1980). Teaching children thinking; teaching children to be mathematicians vs. teaching about mathematics. In R. Taylor (Ed.), *The computer in the school: Tutor, tool, tutee* (pp. 161-196). New York: Teachers College Press.

SPA Honors Papert

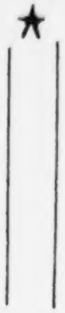
Seymour Papert recently received the Software Publisher's Association Lifetime Achievement Award because of his work demonstrating that computers are ideal tools for promoting creativity, critical thinking skills, and problem solving. He was honored for his work in educational computing, artificial intelligence, and for his invention of the Logo computer language.

Papert's newest book, *The Children's Machine: Rethinking School in the Age of the Computer*, is available for $22.50 from Logo Foundation, 250 West 57th Street, New York, NY 10107.

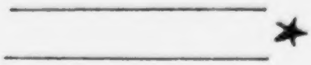
Logo continued from page 3

Figure 1: Maze Descriptions from Logo Test

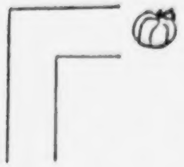
Below are illustrations and descriptions of the mazes presented to the children. Mazes increased in difficulty and in the number of commands necessary to complete the task.



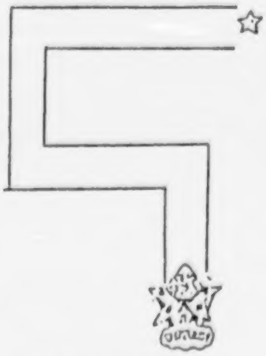
Maze 1



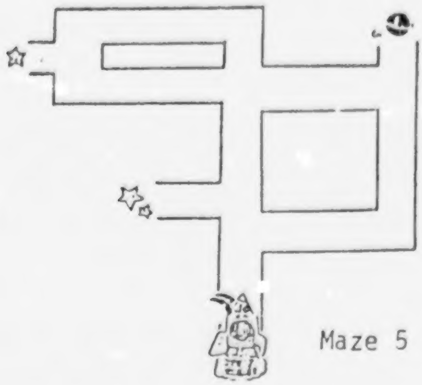
Maze 2



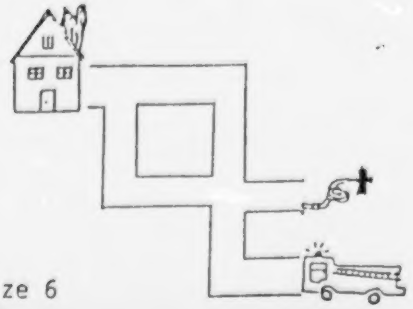
Maze 3



Maze 4



Maze 5



Maze 6

Maze 1: The child is presented a vertical tunnel with the targeted goal at the top. The turtle is located at the bottom of the tunnel. One command, FORWARD, is used to move the turtle to the goal. Each time the child presses the key representing FORWARD, the turtle moves ten turtle steps or units. The child repeats the FORWARD command until the turtle reaches the goal.

Maze 2: The child is presented a horizontal tunnel with the targeted goal at the right end. The turtle is located at the left end of the tunnel. Two commands are used: RIGHT or LEFT (preferably RIGHT) to rotate the turtle and FORWARD. The child must rotate the turtle to face the direction of the goal and move the turtle FORWARD to the goal.

Maze 3: The child is presented a three-step (three command) maze. The target is located at the upper right of the dog-leg maze. The turtle is located at the lower end of the tunnel. The desired outcome is for the child to use FORWARD, rotate the turtle RIGHT or LEFT (preferably RIGHT) and FORWARD again.

Maze 4: The child is presented a complex maze which measures the use of four commands: FORWARD, RIGHT, LEFT, and BACK. The child is asked to follow a specific sequence prior to doing the task. The examiner asks the child to help the spaceman whose ship ran out of fuel. The examiner asks the child to send the turtle as a helper. The child is asked to pick up the spaceman and take him home to his star at the end of the tunnel. The desired outcome is for the child to move BACK, FORWARD, LEFT, FORWARD, RIGHT, FORWARD, RIGHT, FORWARD.

Maze 5: The child is presented a complex maze that includes four targeted goals. The child is asked to move the turtle to each of the goals but must name the target before the execution of the task. Pre-planning skills, strategies (moving to a target over the shortest distance through the maze) and use of appropriate commands are demonstrated.

Maze 6: The child is presented a complex maze and a set of sequential directions prior to completing the task. Three goals are to be met. First, the child must move the turtle from the center intersection to the fire truck. Next, the child guides the turtle to the intersection near the hydrant and backs up the turtle as if to load the forgotten hose in the back of the truck. Finally, the child directs the turtle to the burning house to put out the fire. Pre-planning skills, following a sequence of directions and utilizing appropriate commands are demonstrated.

INTRODUCING LOGO

LOGO AND THE VALIANT TURTLE

by Karen Baird

Introduce Logo to preschool children during free time activities by booting Logo on the computer, activating the Valiant Turtle (a robot which is controlled by keyboard commands), and turning off the computer monitor. Place the keyboard on the chair at the computer table and the Valiant Turtle on the floor by the chair.

The keyboard should have colored stickers strategically placed on the keys that activate the Valiant Turtle. The Turtle should have corresponding stickers on its body that reflect the keyboard stickers (green on the tail for "back," yellow on the head for "forward," blue on the left side of the shell and red on the right).

This activity is exciting for young children. They love to experiment with the keys and watch how the Turtle responds. Teacher intervention should be restricted to turn-taking and respecting the Turtle's desire to move where the keyboard commands direct it to go. Children may also need to be discouraged from physically moving the Turtle themselves, instead of using the keyboard commands. No teacher intervention is required for explaining keypress responses.

After the Turtle becomes a familiar sight in the classroom, children can build tunnels from cardboard boxes and turtle paths on the floor with masking tape. If children do not create these types of scenes spontaneously, the teacher may intervene from within the play group with a suggestion such as, "Let's make the Turtle go under a bridge!" Include materials like boxes, tape, and markers so children have the opportunity to develop their own props.

As children develop motor control of the turtle robot, turtle paths should be made narrower to keep the activity challenging.

Manual Provides Technology Tips for Young Children with Deaf-Blindness

Persons wanting information about the use of technology for preschool and school-age children with deaf-blindness and severe disabilities will be interested in a manual compiled by Nancy Sall and Harvey Mar of St. Luke's/ Roosevelt Hospital Center and the Center for Adaptive Technology in New York.

Technological Resources for Students with Deaf-Blindness and Severe Disabilities contains reviews of 20 software programs and accompanying vignettes which describe how each program was adapted for a particular child.

In addition, the manual lists resources for equipment and adaptive devices as well as an annotated bibliography of 40 articles and papers on special education technology.

Order the manual from the Center for Adaptive Technology, 15 W. 65th Street, New York, NY 10023; 212/ 873-1409. The cost is $6.

Address Change:
Illinois Assistive Technology Project (IATP)
110 Iles Park Place
Springfield, IL 62718
800/852-5110 or 800/524-1030
217/522-7985

Macintosh Version of HyperStudio Now Available

Macintosh users, it's time to cheer! Roger Wagner Publishing has recently released **HyperStudio Mac**. The program has all the great features that its counterpart for the IIGS has (such as full-color graphics and built-in sound), plus it imports GS stacks easily and has a point and click feature that makes creating stacks a snap. It also offers QuickTime video support, plays laserdiscs and CD-ROMs, offers a full-color paint program, and includes a programming language — Logo.

With **HyperStudio Mac** and your imagination you can create software to meet many individual children's needs.

HyperStudio Mac sells for $179.95 from Roger Wagner Publishing, 1050 Pioneer Way, El Cajon, CA 92020; 619/442-0522.

Bean Holders for Your Switches

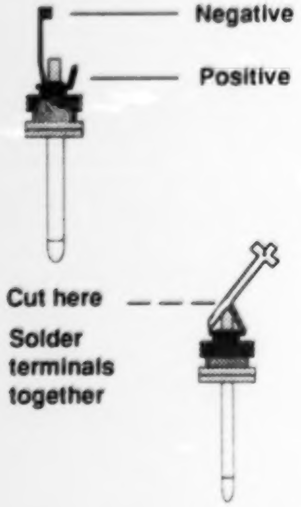
Need a way to organize switches for multiple switch input? Try AbleNet's Two-Bean or Four-Bean Holder. The Two-Bean Holder will hold two of AbleNet's brightly-colored Jelly Bean switches. It is 9 inches long. The Four-Bean Holder is 15 inches long. Both are made of anodized aluminum and may be used with or without a switch guard that is included. The Two-Bean Holder is $25; the Four-Bean Holder is $35. Order from AbleNet, 1081 10th Avenue S.E., Minneapolis, MN 55414; 800/322-0956.

Test Plug

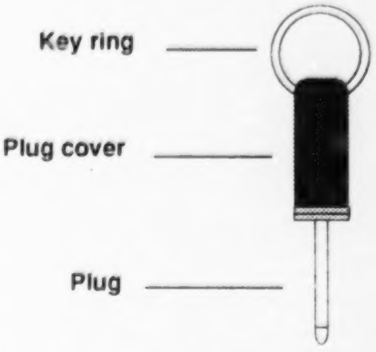
Following the directions given below, you can easily make your own test plug, a troubleshooting tool used to determine whether a device or switch is malfunctioning. Insert the plug into the jack on the toy or battery interrupter. The test plug will activate the toy or battery interrupted device (the battery operated device should be on).

Materials
Miniature inline plug (Radio Shack #274-286)
Rosin core solder
Rosin Flux Remover
Key ring

Equipment
Needle-nose pliers
Soldering iron
Drill and bit sized for key ring
Tin snips



Instructions
1. Use the pliers to bend the two terminals of the plug together so they are touching.
2. With tin snips, cut the end off the longer (negative) terminal.
3. Solder the ends of the terminals together where they now touch.
4. Spray the soldered connection with Rosin Flux Remover
5. Drill a hole through the plug cover.
6. Insert the key ring into the drilled holes in the plug cover.
7. Screw the cover onto the plug.



A Switch to Turn Kids On (1993 edition, $11.95 from Macomb Projects) contains directions for making this test plug as well as tread switches, pillow switches, and other such adaptive devices. Purchase orders may be faxed (309/298-2305) or mailed to 27 Horrabin Hall, Western Illinois University, Macomb, IL 61455.

Easter Seals Celebrates 75 Year History with Stories

To celebrate its 75th Anniversary and explore the history of rehabilitation and disability rights in this nation, the National Easter Seal Society is launching an Easter Seal Story Search. Easter Seals hopes to fill in the gaps in its history through stories it gathers from people who have been involved with Easter Seals over its 75 years.

Easter Seal clients and their families, as well as employees and volunteers, are invited to call 800/STORIES (voice or TDD). Callers receive a brief questionnaire and are asked to share their Easter Seal story.

James E. Williams, Jr., president and CEO of the National Easter Seal Society, explains, "We hope to find people who have received Easter Seals' quality rehabilitation services and achieved independence in their lives, and we'd love to hear from some of the people who, as staff and volunteers, have made our programs and services possible."

Division for Early Childhood Issues Position Statement on Inclusion

Inclusion, as a value, supports the right of all children, regardless of their diverse abilities, to participate actively in natural settings within their communities. A natural setting is one in which the child would spend time had he or she not had a disability. Such settings include but are not limited to home and family, play groups, child care, nursery schools, Head Start programs, kindergartens, and neighborhood school classrooms.

DEC believes in and supports full and successful access to health, social service, education, and other supports and services for young children and their families that promote full participation in community life. DEC values the diversity of families and supports a family guided process for determining services that are based on the needs and preferences of individual families and children.

To implement inclusive practices DEC supports: (a) the continued development, evaluation, and dissemination of full inclusion supports, services, and systems; (b) the development of preservice and inservice training programs that prepare families, administrators, and service providers to develop and work within inclusive settings; (c) collaboration among all key stakeholders to implement flexible fiscal and administrative procedures in support of inclusion; (d) research that contributes to our knowledge of state of the art services; and (e) the restructuring and unification of social, education, health, and intervention supports and services to make them more responsive to the needs of all children and families.

Software Review

Kid Works 2 Offers Variety of Excellent Activities

by Letha Clark

Davidson's **Kid Works 2™** for the Macintosh provides four activity modules for children in grades PreK to 4. Clues for each of the different activities are icons found on the menu page. Write a story in "Story Writer" (the paper and pencil), draw the illustrations in "Story Illustrator" (the paint palette), show and play back the story in "Story Player" (the tape recorder), and create new icons in "Icon Maker" (the block and hammer).

The story can be written with words or can include pictographs taken from the icon boxes across the bottom of the page. Words can be changed to icons or icons can be changed to words. For example, highlighting the word "cat" then clicking on the picture of the cat will change the word into a pictograph. Highlighting the pictograph and clicking on the word will replace the pictograph with the word.

The entire story or only a portion of the story can be read aloud. Selecting an icon or answering "yes" to a question (Save story? Delete story?) is as easy as clicking on the ☛. If the child changes his or her mind and doesn't want to select an icon or save, the story can be returned to by clicking the ✋.

A child can illustrate a story using the tools found in the bookcase and the crayons found in the crayon box. Lines for drawing can be adjusted by selecting the desired width. Fill patterns are chosen by clicking on the desired pattern. Stamp icons can be added to the picture by clicking on the preferred icon. They can also be enlarged by holding the ⇧ key and clicking the mouse button. Text is added to the picture by choosing the typewriter, clicking in the picture to place the cursor and typing. Pictures are saved in the picture box and can be extracted from there and added to the story. The story and illustrations are combined in "Story Player." Full-sized illustrations are displayed with text and the story is read aloud.

The illustrated story can be printed. Each child's story makes a wonderful (and personal) addition to the classroom library.

Davidson's **Kid Words 2™** is available for $35.95 from Educational Resources, 1550 Executive Drive, Elgin, IL 60123; 800/624-2926.

Pinocchio Available on CD-ROM

The Adventures of Pinocchio, an Orange Cherry/New Media Schoolhouse Mac CD-ROM, is a talking storybook that offers interactive graphics and sound. Full-color illustrations adorn each page. Questions at the end of each chapter reinforce older children's comprehension skills.

The CD-ROM sells for $69. Contact Orange Cherry/New Media Schoolhouse, 69 Westchester Avenue, Pound Ridge, NY 10576; 914/764-4104 or 800/672-6002.

SPA Announces 1993 Winners

Winners of the 1993 Software Publisher's Association (SPA) Excellence in Software Awards: **Best Educational Tool Program:** Kid Works 2 (Davidson & Associates, Inc.); **Best Overall Education Program:** Just Grandma and Me (Brøderbund Software, Inc.); **Best Early Education Program:** Millie's Math House (Edmark); **Best Elementary Program:** Dinosaur Adventure (Knowledge Adventure, Inc.)

Company Creates Music for Hearing Impaired

Music For All To Hear, Inc. can bring music into the lives of your hearing impaired students! The cassettes, LPs and CDs contain music that is recorded in the lower range, where the majority of hearing impaired people hear best. (See graph below) Only two instruments are used. There are no voices.

Jeff Bradetich, a classical bass violinist, and his wife Judi, a classical pianist, along with Mary Callahan, a friend with a profound hearing impairment, developed the concept on which the company's music is based after Mary attended a concert given by Jeff and Judi and discovered she could hear the deep sounds of the bass violin. The three were then inspired to develop music with qualities that meets the needs of people who are hearing impaired and at the same time is enjoyable for normal hearing listeners as well.

Classics For All To Hear, available on CD or cassette, features 14 light-classical works such as *Jesu, Joy of Man's Desiring;AveMaria; Etude; Liebesleid;* and*Summertime* by Bach, Schubert, Dvorák, Chopin, Kreisler, and Gershwin and others.

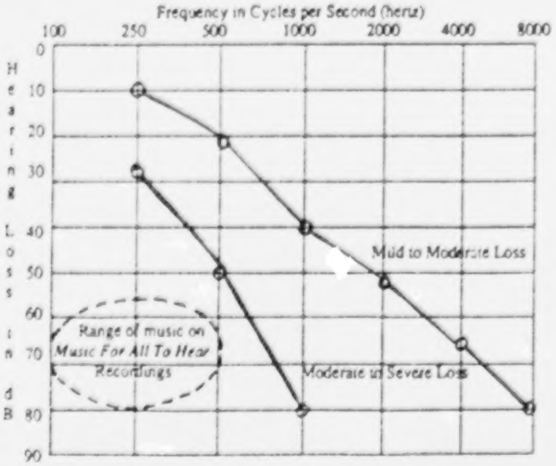
Hear We Go!, available only on cassette, is a collection of 29 favorite childhood songs. A booklet is included which features the music, words, suggestions for actions or movements, and tips on how to listen to music. Songs include*Twinkle, Twinkle; Mary Had A Little Lamb; I've Been Workin' on the Railroad; Happy Birthday; Lullabyes, If You're Happy; Wheels on the Bus.*

Broadway For All To Hear presesnts 19 of Broadway's greatest hits: *West Side Story, Cats, Oklahoma!, Fiddler, Carousel, Cabaret, South Pacific*, and others. This music is available on casssette or LP.

Christmas For All To Hear, a collection of traditional Christmas songs, includes *O Holy Night, Joy to the World, What Child Is This?, Deck the Halls, Silent Night* and 13 other carols. It is available on cassette or LP.

These recordings have been especially arranged and acoustically prepared for the hard of hearing. They are ideal for children and adults of all ages, with hearing ranges from normal to profoundly hearing impaired.

Order from Music For All To Hear, Inc., P.O. Box 6347, Evanston, IL 60204. Cassettes and LPs are $19.95; CDs are $25.95. Shipping and handling charges are $2.50, and Illinois residents need to include 7% sales tax. The company's phone number is 708/475-6336.



This graph shows two typical hearing losses and how *Music For All To Hear* recordings are clearly in the range where the hearing impaired hear best.

Anti-bias Curriculum Ideas To Be Regular Features

Beginning with this issue, **ACTTive Technology**, will highlight software that can be incorporated into an anti-bias curriculum. Children quickly pick up even the most subtle messages about gender, ethnic, economic, and ability diversities. As educators, we must be aware of what those subtle messages hidden within our various curricular materials might be teaching young children. A beginning step is to raise our own awareness on the subject of diversity and add it to the list of evaluation criteria used when we choose software and other educational materials for our classrooms.

Occupations, PowerPad software from UCLA Intervention Program, teaches children about nine community helpers, a fireman, teacher, police officer, gas station attendent, dentist, waiter, bus driver, cashier, and doctor. The software helps breakdown common stereotypes related to occupation and gender. A man is shown waiting tables. The police officer, doctor, and bus driver are women. The program reflects ethnic diversity and uses a child in a wheelchair as one of the characters.

Occupations is available for $35 from UCLA Intervention Program, 1000 Veterans Avenue, Room 23-10, Los Angeles, CA 90024; 310/825-4821.

For further reading about anti-bias curriculum:

Byrnes, D.A. & Kiger, G. (Eds.). (1992). *Common bonds: Anti-bias teaching in a diverse society.* Wheaton, MD: ACEI Publications.

Derman-Sparks, L. (1989). *Anti-bias curriculum: Tools for empowering young children.* Washington, DC:NAEYC.

Curriculum ACTTivities

Mr. Turtle Gets a Hamburger

The following curriculum activity was taken from **Building ACTTive Futures: ACTT's Curriculum Guide for Young Children and Technology. Part V: Amazing Logo Curriculum Activities.**

Skill Area: Problem solving, directionality, communication, group interaction

Child Objectives:
1. Grasp concepts of directionality
2. Develop problem solving skills
3. Interact in a group situation
4. Develop beginning awareness of money skills
5. Develop listening skills

Materials:

Logo PLUS, **Krell** or **Terrapin Logo**
Procedures for **ACTT Instant Logo** (procedures are given in **Building ACTTive Futures: Part V. Amazing Logo**)
Masking tape
Burger wrappers, fry containers, small drink cups, napkins, sacks, carry-out trays, and crew hats from any fast food restaurant
Play money
Pictures you have created to go along with a story about a child helping his/her friend Mr. Turtle find the way to a fast food restaurant
Yellow and green tunic or yellow and green turtle shell (green on the back side, yellow on the front)*
A red glove and a blue glove (red for the right hand, blue for the left hand)*
Overhead transparencies
Circular stickers in yellow, green, blue, and red
Computer and color monitor

Related Activity:

1. With masking tape, make a maze on the classroom floor that represents the drive-thru of a McDonald's™, Hardee's™, Wendy's™, etc.

2. Use pictures and make up a story about a boy (or girl) who shows his (her) friend Mr. Turtle the way to a popular fast food restaurant. Mr. Turtle follows directions that are forward, back, left and right.

3. Check for understanding by asking the children to retell (all or parts of) your story. Then explain that they will be acting out the story.

*Colors can be changed, depending on what you have on hand. Just be sure to use stickers of corresponding colors on the computer keys to represent the directions forward, back, left, and right.

continued on page 10

Curriculum Activity **continued from page 9**

4. Select children to be workers inside the restaurant and give them crew hats to wear. Choose a child to be Mr. (or Ms.) Turtle and wear the "turtle shell" or tunic and gloves. The rest of the class (they can wear crew hats, too!) will give directions to the turtle.

5. Children will direct the turtle, using turtle steps ("Take three turtle steps forward." "Turn right." "Take one turtle step backwards."), to the restaurant, off the city street, into the drive-thru, to the location where the turtle can give a food order to the people inside the restaurant. Further directions will be needed to get the turtle to the pick-up window, where the food can be paid for and received, and then out of the drive-thru and back to the street.

6. If time permits, allow all children an opportunity to be the turtle, give directions, or work inside the restaurant.

Computer Activity:

1. Keeping in mind the starting point for the turtle on the screen (the center), create a maze using a transparency, stickers (use hamburger, fries, soda, ketchup, etc) and permanent ink marker. Three dimensional objects work well, also. If these are used, attach them to the transparency with velcro.

2. Boot **Logo** and then **ACTT Instant Logo** and place stickers on keys used with **ACTT Instant Logo**. Use a yellow sticker on the "y" key to represent "forward," a green sticker on the "b" key to represent "back," a blue sticker on the "s" key to represent "left," and a red sticker on the "k" key to represent right.

3. Attach the overlay to the monitor with tape.

4. Ask children what one item they want to order at the fast food restaurant - a hamburger? - fries? That can be the first destination on the maze. Other destinations can be determined in a similar manner.

5. If children need help, ask questions that will cause them to think through the process and find their own solution.

6. Encourage discussion about what is being done to get the turtle from one point to another.

Variation:

Similar activities could be conducted around other themes, such as going to the grocery store, with appropriate props and stickers to match the theme.

Adaptations:

Visual Impairment: Create textured pictures so that the child can "read along" while the rest of the class looks at the large pictures held by the teacher as she tells the story. Apply textured stickers to the command keys on the keyboard. **Helpturtle** (Little Red School Disk), a utility program for adding sound to Logo, could be used with **ACTT Instant Logo**. A peer could act as guide for helping the child complete a maze. Textured stickers on the overhead for the monitor could be used.

Auditory Impairment: Use signs for the directions, left, right, forward and backward.

Motor Impairment: An alternate input device, such as the Koala Pad™ or the Unicorn Expanded Keyboard™ and the Adaptive Firmware Card™ could be used. Refer to the procedures in the Logo section of **Building ACTTive Futures**.

If you are interested in other Logo activities for the preschool classroom, **Amazing Logo**, Part V of **Building ACTTive Futures** can be purchased separately from the other parts of the curriculum guide for $30. Send purchase orders to Macomb Projects, 27 Horrabin Hall, WIU, Macomb, IL 61455 or fax them to 309/298-2305. Shipping charges of $3.00 are waived if payment accompanies your order.

ACTT Identifies Six Levels of Switch Progression

by Linda Robinson

Families and teachers often voice frustration over the fact that a child is not using his expensive augmentative communication device. There may be many reasons for this lack of use. One common cause for switch users is the inability to appropriately use a switch.

We have found that there is a progression of skills needed before a child can use a switch effectively. The child cannot be expected to know how to scan pictures or words with a switch without proper training. After understanding causality, he must learn that there is an appropriate time to press his switch, and that specific switch pressing will result in communication. By starting with simple software programs, which at times seem like games, the child can master the skills needed to communicate with a device, such as the Liberator, or to do word processing functions through use of his switch.

There are many simple activities which can be done to teach or reinforce these switch skills. Over the past several years there has been an increase in the number of software programs designed to reinforce such skills. Don Johnston's "Make It Series" and R.J. Cooper's programs are good examples for the Apple computer.

The following is a list of skill levels defined by our Project combined with suggested Apple software. Some programs have more than one activity on the disk which help reinforce different switch skills and are therefore listed under more than one skill area.

Level 1: Simple Switch Input

One switch activation will repeat an action for beginning cause and effect.

Adapted Frog & Fly (Public Domain)
Build-A-Scene (RJ Cooper & Associates)
Creature Antics (Laureate Learning Systems)
Early & Advanced Switch Games (RJ Cooper & Associates)
Motor Training Games (Don Johnston)
New Cause & Effect (Public Domain)
Switch 'N See (Macomb Projects)
Switch It - See It (UCLA Intervention Program)
Switch It - Change It (UCLA Intervention Program)

Level 2: Two Switch Input

Each switch would cause a different action

Stickybear Opposites (Optimum Resource) and AFC set up
Peanut Picture Puzzlers (American School Publishers) and AFC set up

Level 3: Appropriate Time to Press Switch

Software presents child with auditory or visual cue. Child presses switch only after hearing or seeing cue.

Catch the Cow (Computerade Products)
Children's Switch Progressions (R J Cooper & Associates)
Early & Advanced Switch Games (R.J. Cooper & Associates)
First Words (Laureate Learning Systems)
Join the Circus (Don Johnston)
Master Blaster (Macomb Projects)
Make It Happen (Don Johnston)
Reactions (Don Johnston)
Scanning Game (Public Domain)
Switch Arcade (UCLA Intervention Program)

Level 4: Double Input Selection and Appropriate Time to Press Switch

Child presses switch to initiate action. After auditory or visual cue, child presses switch again for desired results.

Cats Switch (Public Domain)
Make It Scan (Don Johnston)
McGee (Lawrence Productions) and AFC set up
Motor Training Games (Don Johnston)
Run Rabbit Run (Exceptional Children's Software)

Level 5: Double Input Selection, Appropriate Time to Press Switch, and Object Placed in Specific Position

Child presses switch to initiate action.

Child waits until specifically placed item is highlighted.

Child presses switch a second time.

Catch the Cow (Computerade Products)
Eensy Weensy Spider (UCLA Intervention Program)
Learn to Scan (Don Johnston)
Make It In Time (Don Johnston)
Make It Scan (Don Johnston)
Rabbit Scanner (Exceptional Children's Software)

Level 6: Double Input Selection, Appropriate Time to Press Switch, Object Placed in Specific Position and Intent to Communicate

Child presses switch to initiate scan.

Child selects desired item as it is highlighted.

Child presses switch a second time to achieve intended outcome.

Any program set up to use a scanning array with the Adaptive Firmware Card™.

For example: **AFC Menu & Construction Disk** the child will scan the following array for ^ V < > D (directions) C (Click) X (exit) with Explore-a-Story software. Select the following from the **AFC Menu & Construction Disk**:

Expl-mouse 1-sw+ Explore-a-Story

In a future issue we will publish a similar suggested software list for Macintosh programs.

Project ACTT Recommends Macintosh Software

If you are looking for new software for your early childhood classroom, Project ACTT recommends these Macintosh programs.

Programs available from Educational Resources:

KidDesk by Edmark ($27.95); **KidPix** by Brøderbund ($37.95); **McGee, McGee Visits Katie's Farm, McGee at the Fun Fair** by Lawrence Productions ($15.95 each or $34.95 for the series);**Millie's Math House** by Edmark ($34.95); **Playroom** by Brøderbund ($34.95).

Programs available from Don Johnston Developmental Equipment, Inc.:

aMAZEing Ways by JOKUS ($80);**The Camelephant** by JOKUS ($65); **Hit 'N Time** by JOKUS ($80); **ToyStore** by JOKUS ($95).

If you have a CD-ROM drive for your Macintosh, **Just Grandma & Me** by Living Books ($34.95) is an excellent interactive program which children love. It is available from Educational Resources.

Catalogs listing these and other programs and devices may be obtained by contacting Educational Resources 708/888-8300 or 800/624-2926 and Don Johnston 708/526-2682 or 800/999-4660.

Save Cheerios® box tops and receive books for your classroom or center. Information on **BOX TOPS FOR BOOKS**, sponsored by Cheerios, will be explained in the August/September 1993 issue of *Early Childhood Today* or call 800/631-1586 for details.

SWITCH CONSTRUCTION MANUAL REVISED

The 1993 revised edition of **A Switch To Turn Kids On** is now available from Macomb Projects.

The 47-page manual contains all the information you need for making your own switches and other related products for use at home or in school.

This guide explains how to construct a battery interrupter, a tread switch, a pilow switch, a mercury switch, and a test plug.

Also included are instructions for making two- and four- hole switch input boxes, extension cords, and two "Y" patch cords. There are also directions for adapting a Chirping Chick Easter toy for switch use.

The manual gives information about simple circuitry that is easily understood by a novice switchmaker! Tips on soldering and wire stripping are included, as are lists of all materials and equipment needed to construct the various items.

If you want to sponsor a switch workshop for parents and teachers, **A Switch To Turn Kids On** has information about holding such a workshop; you are even given a checklist for organizing the workshop and troubleshooting tips--just in case someone's efforts result in a non-working switch!

Finally, the book provides you with lists of both commercial and public domain switch-operated software and a two-page list of switch resources.

This product sells for $11.95. Use the order form at the end of **ACTTive Technology** or send your purchase order to Macomb Projects, 27 Horrabin Hall, Western Illinois University, Macomb, IL 61455. Purchase orders may also be faxed to Macomb Projects at 309/298-2305.

Videotapes of Popular Early Childhood Interactive Satellite Inservice Programs

Each month throughout the school year, Macomb Projects' Project APPLES (Assistance for Preschool Personnel in Learning Environments) sponsors APPLES Magazine, an interactive satellite inservice program, featuring topics of interest to early childhood educators. Videotapes of each hour and a half APPLES Magazine are available for purchase.

The 1992-93 APPLES Magazine season featured the following topics: **Crazy Shoes & Circus Feats** (Jim Gill), **Keeping the Channels Clear: The Same Understanding** (Lana Hostetler and Judy Flanders), **An Operator's Manual for the Early Childhood Motor System** (Sue Kirchgessner), **Transdisciplinary Play-based Assessment** (Toni Linder), **Uncertainty and HIV Disease in Families** (Kathy Sherrieb), **The Medically Fragile Child** (Dr. Michael Trieger & Stacy Parker-Fisher), **Pervasive Developmental Disorders and Autism** (Bennet Leventhol), **Hand in Hand We Learn Together** (Connie Peterson, Billie Lehman, Karen Niebur, and Laura Pribble), and **There's A Mouse in My Classroom!** (Karen Baird, Letha Clark, and Carol Bell.)

Tapes from previous years' programs are also available. Write or call Project APPLES to request a list of the programs. Tapes are $49.95 each and should be ordered from Project APPLES, 27 Horrabin Hall, Western Illinois University, Macomb, IL 61455. Purchase orders may be faxed (309/298-2305). Illinois residents should call Project APPLES at 800/227-7537 for Illinois pricing information.

Calendar of Conferences

September 21-22, 1993: Educational Resources' 4th Annual Emphasis on Technology Conference in Westmont, IL. Contact Maureen Dvorak, Conference Manager, Educational Resources, 1550 Executive Drive, Elgin, IL 60123.

October 3-6, 1993: National Symposium on Information Technology in Myrtle Beach, SC. Contact National Symposium on Information Technology, Center for Developmental Disabilities, University of South Carolina, Benson Bldg., 1st Floor, Columbia, SC 29208.

October 6-8, 1993: "Sharing A Vision: Educational Partnerships for a Better Tomorrow," Third Annual Illinois Early Childhood Conference in Peoria, IL. Contact Mary K. Hawley, 500 Wilshire, Belleville, IL 62223.

October 7-8, 1993: Illinois Education and Technology Conference in Springfield, IL. Contact Bonnie Smith, Special Projects Office, Western Illinois University, Macomb, IL 61455; 309/298-1690.

October 8-9, 1993: 14th Annual Southeast Augmentative Communication Conference in Birmingham, AL. Contact Southeast Augmentative Communication Conference, 2430 11th Ave. N., Birmingham, AL 35234.

October 14-15, 1993: Quincy Conference 21 in Quincy, IL. Contact Quincy Conference, 1444 Maine Street, Quincy, IL 62301; 217/224-6770.

October 15, 1993: "Assistive Technology and You" in Harrisburg, PA. Contact the Lycoming County Committee on Employment of People with Disabilities, c/o Office of Vocational Rehabilitation, 734 West Fourth Street, Williamsport, PA 17701; 800/442-6359.

October 21-23, 1993: Closing the Gap Conference in Minneapolis, MN. Contact Closing the Gap, P.O. Box 68, Henderson, MN 56044; 612/248-3294.

November 1-2, 1993: Early Intervention Project Conference in Collinsville, IL. Contact Marci McCarrey, Illinois Department of Mental Health and Developmental Disabilities, 405 Stratton Building, Springfield, IL 62765.

November 6, 1993: "Challenging the Next Generation," Illinois Computing Educators Annual Conference in Addison, IL. Contact Robert Brunet, 1175 S. Harvey Road, Oak Park, IL 60304; 708/848-1210.

November 18-21, 1993: ASHA Annual Convention in Anaheim, CA. Contact ASHA, 10801 Rockville Pike, Rockville, MD 20852; 301/897-5700.

January 20-22, 1994: Technology, Reading & Learning Difficulties in San Francisco, CA. Contact Educational Computer Conferences, 1070 Crows Nest Way, Richmond, CA 94803; 510/222-1249 or 800/255-2218.

DBA Newsletter Explains Benefits Programs

The Disabilities Benefits Association (DBA) is a group composed of professionals, people with disabilities, parents, and others concerned about issues involving Social Security disability benefits. The DBA has an eight page bi-monthly newsletter, *Disability Benefits in Brief*, which explains SSI, SSDI, PASS, IRWE and other Social Security disabilities benefits programs.

Membership in DBA is $75 a year for a person with a disability or parents of a child with disabilities. Professionals may join for $115 a year. Membership includes a subscription to *Disability Benefits in Brief*.

Subscriptions to the newsletter are available without membership. Persons with disabilities or parents may subscribe for $35, professionals for $75.

For a free sample of *Disability Benefits in Brief*, contact Connie Tomski, DBA President, 495 E. Ellefson St., Iola, WI 54945; 715/445-4755.

JOKUS Adds New Software

JOKUS™ software is noted for its attention to early skills and alternate input methods. Young users practice cause and effect, choice-making, timing and discovery learning with a single switch, alternate keyboard, or Macintosh TouchWindow or other devices.

Switch Intro and **Games 2 Play** are two new JOKUS software programs. **Switch Intro** ($95) has nine activities for learning to use a single switch at various levels. There are cause and effect activities and beginning scanning activities. **Games 2 Play** ($125) involves cooperative and competitive play. There are 11 activities, including Build a Castle, Treasure Island, and Tic-Tac-Toe. Two switch users can play together, or one switch user and one mouse user can play together.

JOKUS programs use animation, digitized sounds and fun graphics. Each program has options for changing scan speeds, choice-making level, timing elements, and others.

Most JOKUS games can be used with the traditional keyboard, mouse, or other mouse input device. For single switch use, an interface is required such a Macintosh Switch Interface or Ke:nx.

JOKUS programs are distributed by Don Johnston Developmental Equipment, Inc., 1000 N. Rand Rd., Bldg., 115, P.O. Box 639, Wauconda, IL 60084; 800/999-4660.

Overlays Aid Visually Impaired

Unless tactile clues are present for a child who is severely visually impaired, the PowerPad's flat-surfaced overlays have little meaning. Following the procedures given in "Raised Drawings Made Easy" elsewhere on this page, you can create raised-line drawings that will help the child with a visual impairment access the PowerPad.

Put the PowerPad overlay face down on the padded surface. Then trace the overlay pictures on a piece of mylar cut to the correct size. (The overlay has to be face down because you will turn the mylar over so the child can feel the raised drawing. If you don't trace it from the reverse side, your raised drawings will be on the wrong side of the PowerPad.)

When the tracing is finished, simply turn the overlay right side up and place it on the PowerPad as usual. Then turn the mylar over so the raised side is up and place it on top of the overlay on the PowerPad. The pictures should match.

A similar procedure can be followed if you want to trace the overlay's pictures with puffy paint. The only differences are that you don't need a padded surface on which to work and you don't need to turn the original overlay face down.

Either method will give you an inexpensive but effective tactile overlay for a child's use.

Valiant Technology now has a U.S. distributor that can service Valiant Turtles (robots used with various versions of Logo). Contact Valiant Technologies, 188 Industrial Drive, Elmhurst, IL 60126; 800/552-9869.

Something Fun For You and Your Color Macintosh

by Letha Clark

Do you enjoy exploring your Macintosh? Are you looking for something fun that takes only minutes to accomplish? Sound like a good idea? Change that drab folder icon to the program logo by following these easy copy and paste steps:

1. Double click the icon designating your hard drive. It might be Macintosh HD. The contents of the hard drive will be displayed in a window.
2. Open the **View** menu from the menu bar and select "by Icon" or "by Small Icon."
3. Double click a program folder. Let's use **The Playroom**™ as an example. In this example, double click the folder to the left of **Color Playroom** in your list of program applications and open the folder.
4. Inside the folder, locate the mouse icon for **The Playroom**.
5. Click one time on the mouse to highlight the icon.
6. Open the **File** menu from the menu bar and select "Get Info." The window that opens contains interesting information about **The Playroom**, but all you are interested in is the icon of the mouse in the upper left corner.
7. Click one time on the mouse icon.
8. Open the "Edit" menu from the menu bar and select "Copy."
9. Click in the close box near the left end of the title bar of the information window. Click in the close box for **Color Playroom.**
10. **Color Playroom** should still be highlighted. If it isn't, click one time on the folder for **The Playroom**.
11. Open the **File** menu from the menu bar and select "Get Info." An information window will open.
12. More interesting information is displayed but locate the folder icon in the upper left corner of the "Color Playroom Info" window and click on it one time.
13. Open the **Edit** menu from the menu bar and select "Paste." The folder icon will be replaced with the mouse icon.
14. Click in the close box at the left end of the title bar.
15. The mouse icon will have replaced the folder icon. If the mouse icon is a boring black and you want it in color, you can fix that in a jiffy. Click once on the mouse icon if it is not selected. Open the **Label** menu and pick your color. If you don't like that color, chose another.
16. Ta-Da!! All done! Now check out that nifty program icon.

Raised Drawings Made Easy

Ken and Marietta Taylor have created procedures for making raised drawings for their five year old son who is blind. The Taylor's "raised drawing kit" consists of a mouse pad, overhead transparencies, and a ball point pen.

To create a raised drawing: 1) place a picture on the mouse pad, 2) cover the picture with an overhead transparency, 3) use the pen to apply pressure as you trace the picture, 4) turn the transparency sheet over when you are finished tracing and you will have a raised line drawing of the picture.

If you need larger pictures, purchase mylar in sheets up to three feet wide from an art supply store.

Information was taken from "Ten Dollar Tech," a feature in the June 1993 issue of TechTalk, the newsletter of the Illinois Assistive Technology Project.

Simple Switch Software Records Child Progress

Macomb Projects has software available for Apple II computers and Macintosh computers which use a IIe emulator card. Use the order form below to order these and other products. A catalog is available upon request.

Simple Switch Activities

This program helps reinforce understanding of cause and effect in a cognitively young child. When a switch is pressed, a rag doll appears on the monitor and dances to "Skip to My Lou." The doll dances as long as the switch is activated.

The program has record-keeping capabilities. Number of seconds between switch presses, number of switch presses, and number of notes played are recorded. Records may be printed.

The program costs $11.95.

Master Blaster

This game for two players reinforces visual attending with a switch response. A "beep" may be added as an auditory cue for the child.

A rocket ship appears on the screen and the child who presses his/her switch first launches the rocket. **Master Blaster** keeps track of who pressed the switch first and how many times each child launched the rocket. After each launch, the children are told who launched the rocket.

If a child tries to get an "edge" on his opponent by holding his switch down before the rocket appears on the screen, the program says, "(Child's name), release the switch." This is repeated until the press is released.

Master Blaster ($11.95) is used with the Echo Speech Synthesizer.

Simple Switch Activities

The program ($19.95) includes four activities which can be used to train switch use for cause-effect relationships. The record-keeping information includes number of presses, duration of press, and elapsed time between presses. Time is recorded in seconds to give you accurate documentation for measuring skill acquisition.

MACOMB PROJECTS' COMPUTER PRODUCTS ORDER FORM

Name/Agency ____________________ **Billing Agency** ____________________

Shipping Address ____________________ **Billing Address** ____________________

City ____________________ **State/Zip** ____________________

Phone (   ) ____________________ **Date of Order** ____________________

Products	Price	Quantity	Total
MAKE CHECKS PAYABLE TO MACOMB PROJECTS		SHIPPING	
		TOTAL	

Orders placed from Illinois, Indiana, Iowa, Kansas, Michigan, Nebraska, Minnesota, Ohio, South Dakota, and Wisconsin must 1)include a tax exempt number or 2)include appropriate sales tax.

Your check or purchase order must accompany the order. Purchase Orders may be faxed to 309/298-2305. No phone orders accepted. Materials are shipped parcel post unless other arrangements are made. Please allow four to six weeks for delivery. Prices are subject to change without notice.

Orders from outside the U.S. must be paid in U.S. funds drawn from U.S. banks. Allow additional time for shipment.

ACTTive Technology Subscription Form

Name ____

Agency ____

Street Address ____

City ______________________ **State** __________ **Zip** __________

For a year's subscription to *ACTTive Technology*, complete this form and return it with a purchase order or check for $16.00 to Macomb Projects, 27 Horrabin Hall, Western Illinois University, Macomb, IL 61455.
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Macintosh Applications for Young Children

by Linda Robinson

Anyone who has used a Macintosh computer knows how "user friendly" it is for adults, but is it easy and, more importantly, appropriate for young children to use? The answer is a resounding "YES!" There are many features which make the Macintosh suitable for use with young children. The advantages of graphics, sound, speed, and memory capability provide an exciting platform for developing curriculum activities. However, if you have access to an Apple II series computer and have no chance of updating your equipment in the near future, don't dismay. There are advantages of the older technology that you should consider. At the same time it is wise to become aware of the Macintosh features in case you have access to new equipment in the future.

Macintosh Features

Although you do not need the latest technology to conduct computer activities, there are certain features of the Macintosh which make it particularly applicable for use with young children. First, the Macintosh LC contains one expansion slot which allows you to continue using Apple software and peripherals through the Apple IIe Card. The children's favorite programs can continue to be used as they begin to be introduced to Macintosh software.

Second, software can be organized on the system's hard drive for easy access when working with children. With a program, such as **KidDesk** (Edmark), specific software can be made accessible for preschool children. The children themselves can choose which program they want to use. Third, graphics are much more vivid, since there is increased color capability with the Macintosh LC. This visual effect may be an attention-grabber for young children.

A fourth important feature of the Macintosh is the enhanced sound capability. Many software programs use recorded sounds combined with the picture of an object. This again is very appealing to children. For those in birth to three programs, the sounds help to make a picture on the monitor more realistic and understandable to them. Also with the Macintosh you have the capability of recording the children's voices or sounds so they can hear it played back to them. With certain software your own recordings can be used as part of the program. This makes activities even more individualized for children.

Another advantage of the Macintosh is its speed, which makes picture changes seem instantaneous. The result of a touch or key press is immediate. To adults the speed may only seem important for word processing, but it becomes a crucial factor when observing a young child's interactions with a software program. The final feature of the Macintosh is its

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"Old" Apples Not Necessarily "Rotten" Apples!

by Linda Robinson

Using Older Technology

The design of the computer activity is as important as the type of technology being used. An Apple II plus or IIe computer can be just as effective as the Macintosh LC if you plan an activity so that the technology is truly integrated into your program. Consider the child goal, off-comp[illegible] activities and materials, the software, peripherals, and the way you use the program and device.

There are certain advantages and disadvantages of using older equipment. The main disadvantage is that the graphics are less vivid and sound is less realistic than it is with the newer technology. Also it may become increasingly more difficult to find support services for the older machines. Another disadvantage is that there are not as many new programs being developed for the older computers.

On the other hand, there are advantages of using older technology. Donations of old equipment may become more readily available as people begin purchasing newer models. Therefore, you may have access to more machines. In some cases it is possible to create a lending library of

continued on page 3

From The Editors. . .

by Linda Robinson

We in the Midwest are constantly aware of how things around us are changing, particularly at this time of year when the leaves change color, the days get shorter, and the weather gets colder. It's a beautiful time of year, yet we regret the change of scenery when we are left with bare trees and frozen ground. On the other hand, we look forward to an early Spring when everything is renewed. How does this philosophical look at life relate to technology?

Our field is probably the fastest changing of any profession. We get excited about all the latest electronic devices, yet we are constantly aware of how quickly our technology knowledge becomes outdated. It is like the change of seasons; we need to know that things will become familiar and our level of knowledge renewed again.

Be assured that there are many people, some of whom are technology specialists, others who are teachers, therapists or parents, who are willing to share their computer expertise to make you comfortable with the applications you need. This was apparent at the recent Closing the Gap Conference in Minneapolis. Many presenters have worked with children or adults with technology and are anxious to give the audience practical ideas to take home. Our ACTT Conference is based on a similar philosophy, and we welcome any presenters who would like to share their expertise with others. In March we will be hosting our fifth conference, ACTT V. We hope you will plan to join us in Macomb, either in the audience or "on stage."

Besides attending conferences, there are written or video products which can help you keep updated in technology. Our Macomb Projects staff have just completed two new books on Macintosh peripherals and software and a new videotape on Mac applications. We've compiled this information to make your job in early childhood as easy as possible.

Another new product we have which was designed to help you adapt a commercial program for switch or alternate keyboard access is a disk containing Ke:nx set-ups for **Millie's Math House**. If you have a child who needs to learn scanning skills, these set-ups and the accompanying "Levels of Switch Progression" will be a tremendous aid for you. We have also designed a number of Unicorn Expanded Keyboard overlays to simplify parts of the same software. Instead of taking time to figure these set-ups out for yourself, take advantage of the work we have done for you already on this one disk. If you find this disk helpful and would like for us to design set-ups for other programs, please let us know.

If you need more than written products, videotape or software to achieve the level of computer expertise you want, then our training may suit your needs. We offer one-week training sessions three times each year. And if you cannot come to us, we are always willing to visit you. A one or two-day workshop can be conducted at your site. There is further information on our services and products throughout this issue. No matter what your computer experience is, you are not alone in feeling overwhelmed by this ever changing technology. Just remember, there are many of us who would be glad to help you through the dark days into a renewed season of technology knowledge.

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adaptability for children with disabilities. There are a variety of peripherals which can be used.

A Macintosh TouchWindow makes mouse-operated programs easier for a young child to use. The TouchWindow takes the place of a mouse so that only a press on the screen is required, instead of a fine motor movement of the mouse.

Intellikeys is another type of touch tablet for the Macintosh. Through use of a bar-coded overlay the device provides alternate access for almost any software program. With the programs, **Overlay Maker** and **IntelliTalk** (IntelliTools), overlays can be designed for communication or to enhance any other skill area.

Switches are another input method available with the Macintosh. Switch programs can be used with a Macintosh Switch Interface or with the Ke:nx (Don Johnston). The Ke:nx is an alternate computer access device specially designed for the Macintosh. It will allow almost any commercial program to be accessed by using alternate input devices, such as switches, Unicorn Expanded Keyboard, and the TouchWindow. Methods include Alternate Keyboard, Scanning, Morse Code, OnScreen Keyboard, Communication Device ASCII, and Assist for the regular Macintosh Keyboard.

Developmentally Appropriate Activities

No matter how sophisticated the technology is, the activities you design still need to be developmentally appropriate for young children. The child goal for the activity is an important factor to keep in mind along with off-computer materials to reinforce the computer activity.

In a birth to three program an activity can be designed around sounds that children hear around them. The "Make it Sound" portion of the program, **Switch Intro** (JOKUS-Don Johnston), is particularly appropriate for this activity. One picture is presented at a time to the child as he presses the switch to repeat a sound. The child is controlling the sound as he talks about it or imitates the sound with concrete objects, such as a play hammer, guitar or phone.

With the "Willy the Worm" portion of the same program an activity can be designed to reinforce simple cognitive skills. A stuffed figure in the shape of a worm helps children explore the movements of the worm in and out of the play tunnel. "How can you make the worm move through the path to the tunnel?" "How can you make him come back after he disappears inside the tunnel?" Children play with the worm on the floor or on a table, then move the computer version of Willy the worm on the screen with a switch press.

Through the use of a drawing program, **KidPix** (Broderbund), children have fun as they explore the brush movements, paint patterns, stamps, and even sounds. Their creation can then be printed in color on the ImageWriter II or other color printer. When more than one child uses the program, social skills and communication may also be enhanced.

One of the children's favorite programs, **Millie's Math House** (Edmark), is one that can be used easily with off-computer materials. One part of the program which may be appropriate for preschoolers is "Build-A-Bug" in which they can create their own crazy-looking bug both on and off the computer as a group or individual activity. By using special fabric for the bug figure, small felt objects, plastic eyes, pipe cleaner tails and various size pom-poms can be attached to the bug body with velcro backing.

"Big-Middle-Little," another part of the same program, is a fun way for young children to learn about sizes as well as many other early concepts. Children move the shoes on and off of three characters, daddy, mommy and baby, until they find suitable shoes for each one. The voices and animation in the program capture the children's attention. Off-computer activities can

continued on page 4

"Old Apples" continued from page 1

old computers for families. Be aware, however, that donated computer systems are not always complete. If the system is missing parts, local fund-raising may be needed to obtain all of the components.

Another advantage of using old technology is that teachers and families may be less inclined to worry about equipment damage. Therefore, they may use the older computer more freely with the children.

Older models may meet the needs of a young child very well. Vivid graphics and realistic sounds are not absolute necessities for every activity. A two-year-old can happily explore the appearance and disappearance of the little creature in **Creature Antics** (Laureate) using an Apple II computer with the TouchWindow. For another child, a simple switch attached to an old Apple II + computer can serve as the tool by which cognitive skills can be increased.

There are plenty of peripherals and software available still for the Apple II line. Macinotsh may be the "up and coming" equipment for the classroom, but you and your children can still reap benefits from the computer you have on hand.

Speakers Attached to Mac Aid Hearing, Understanding

You can connect speakers, an amplifier, headphones, or other audio output devices to the sound output port located on the back of the Macintosh CPU. Children are likely to hear and understand sound from the computer better if speakers or an amplifier is used during classroom or group activities. Using headphones for individual activities decreases the liklihood that other children may be distracted by music or speech coming from the computer.

The Macintosh sound output port accepts a standard stereo miniplug; however, not all phone jacks will plug correctly into the port. Project ACTT recommends using the Phono Jack to Mini Stereo Plug Adapter from Radio Shack (Catalog #274-378). It fits properly into the sound output port and (best of all) costs only $2.49!

Hot off the press!

Good Leads for Software Needs: Suggested Apple Software for Young Children

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and

•

How To's for Apple II's

Both books were revised in October 1993 and contain information about new software and peripheral devices for the Apple IIe and IIGS computers.

Each book is $15.00 but the two can be ordered as a set for $25.00.

Purchase your copies today! Use the order form in the back of **ACTTive Technology**.

NEW! NEW! NEW! NEW! NEW! NEW! NEW! NEW! NEW! NEW!

Macintosh Products from Macomb Projects!

The early childhood computer specialists on the staffs of Project ACTT, the Technology Inservice Project, and Project CAPSULE at Macomb Projects have collaborated to produce four brand new products especially for you and your Macintosh.

Here's what's new:

The Latest Technology for Young Children is a twenty-two minute videotape focusing on the Macintosh LC and adaptations for young children. It includes a discussion of the features and advantages of the Macintosh LC, software demonstrations, footage of child applications, and ideas for off-computer activities. $50.00

MACcessories: A Guide to Peripheral Devices for the Macintosh was designed to help the Macintosh user understand peripheral devices appropriate for the Macintosh. The book offers descriptions of each device, its advantages and disadvantages, procedures for installing the device, troubleshooting tips, suggested software, and company resources. $15.00

Good Leads for Software Needs: Suggested Macintosh Software for Young Children, a software guide containing reviews of Macintosh software (including software on CD-ROM) for young children, includes a section on adult productivity software. Each review includes system requirements, publisher name, price, and a brief description of the software. $15.00

Save money! Buy **MACcessories** and **Good Leads for Macintosh Software** as a set for only $25.00.

If you have young children who would enjoy **Millie's Math House** (Edmark) but who need a switch or alternate keyboard for access, **Ke:nx® Set-ups for Switch and Alternate Keyboard Input for Millie's Math House** may be just the solution! This disk contains 22 set-ups for use with Ke:nx (Don Johnston). Twelve of the set-ups are for switch input arranged according to levels of scanning skills. The other 10 are set-ups for alternate keyboard use. A copy of ACTT's Levels of Switch Progression and a reduced version of the graphics for Unicorn set-ups come with the disk. $15.00

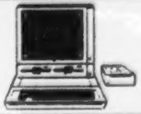
These products may be ordered from Macomb Projects. An order form is at the back of **ACTTive Technology.**

Macintosh **continued from page 3**

be designed using the same felt board idea with different size characters and shoes available for the children to explore.

Through the use of Ke:nx any program, such as **Millie's Math House**, can be adapted so that a child who needs switch or touch tablet input could use the same program. For children who have severe physical disabilities and will eventually be using a scanning mode for communication, switch activities can be designed to reinforce some of the beginning switch skills.

In the next issue specific ideas for designing Ke:nx set-ups for switch and alternate keyboard use with **Millie's Math House** will be discussed along with storytelling activities and information on the very latest software, CD-ROMs, for young children. If you are interested in seeing examples of these programs and children in preschool and birth to three programs using them, ACTT has a new videotape product, "The Latest Technology for Young Children," which discusses and illustrates Macintosh curriculum applications. Further information on this videotape can be found in an article on this page.



Curriculum ACTTivities

The following curriculum activity was taken from **Building ACTTive Futures: ACTT's Curriculum Guide for Young Children and Technology. Part III: Preschool Curriculum Activities.**

FaceMaker Memory Game

Content Area: Visual memory, thinking skills

Child Objectives:

1. Use the icon cards to develop a pattern for the face to perform
2. Chart sequences
3. Program the face to complete the charted sequence
4. Imitate facial gestures that illustrate feelings

Materials:

Facemaker Golden Edition (Spinnaker)
Prepared icon stickers for animation
Prepared icon cards for charting and creating patterns of sequential animation.

Procedures:

Related Activities:

1. Have several activities available near the computer center for children to construct faces. Crayons and paper plates, felt board and "face" pieces, Mr. Potato Head, clown make-up and mirrors, materials for a "Do it Yourself" bulletin board.

2. Conduct a feelings or expressions lesson. Discuss the way people's faces look when they are happy, sad, angry, tired, afraid, surprised, worried or confused. Write experience stories about some of these feelings and ask the children to illustrate their stories.

3. Ask the children to recall a series of events periodically during the day beginning with a two-step memory series and moving to a four-step series. What did you do first when you came to school?" Then what did you do?"

Computer Activity:

1. Choose a child to insert **Facemaker** disk into drive. Ask another child to turn on the computer and monitor. Place icon stickers over appropriate keys and review what each sticker represents. (See documentation for details).

2. Ask the children to "build" a face that can be used in the "game" section.

3. When a face is completed, direct children to the "program" option and use icon cards to develop a series of patterns for the face to repeat. Chart the sequences and repeat the programmed series by pressing "return". Mix up cards and repeat animation again. Ask children to put the cards back in order again the way the face shows them to us. Start with two or three icons at a time and increase icons as children in the group master the task.

continued on page 6

Curriculum Activity continued from page 5

4. Encourage children to develop the ability to remember a series of actions in a specific order. Use icon cards to help children remember the order of the series of animation. Using icon cards which match the represented sticker icons children can organize their thoughts and continue to work together for longer periods of time with this program. Remove the use of icon cards as the activity is repeated increasing the opportunity for children to rely on visual memory and sequential thinking skills.

Variation:

1. Ask children to imitate the face on the computer. Have them program each other using the icon cards or verbal instructions.
2. Present a printer activity using **Mask Parade** (Springboard) to construct a mask. Encourage construction of masks that show a variety of feelings so they can be used in a discussion group and later used on a bulletin board.

Helpful Hints:

Some children may have trouble recognizing the differences in the facial movements. The "cry" and "wink" gestures made with the eyes and the "smile" and frown gestures made with the mouth may be difficult for some children to identify. Visual discrimination details can be pointed out for the children, for instance, "Watch for the tear when the eyes cry," and "Look at the man's eyes when he is sad. They look different than when he is happy." Children may need to reorganize their commands if a sequence is not correct. Vary the number of items in the sequence since some children may need shorter sequences than others.

Adaptations:

Visual Impairment: Use amplified speaker to increase the sound the program makes as the face becomes animated. Attach tactile clues to the keycaps of the keys which operate the program. Be sure to select a black screen as the white screen is more difficult to see.

Auditory Impairment: Use amplified speaker or headphones depending on the degree of severity of the hearing loss.

Motor Impairment: Use the Adaptive Firmware Card with simplified scanning array to allow for single switch input. Begin with three scanning items and gradually add the rest of the facial features as the child becomes more familiar with the scanning of words or symbols.

Free Products -- For A Fee

Looking for some "free" products for your school? Hundreds of businesses in the United States donate new products to schools. Through a 300-page catalog, members in the National Association for the Exchange of Industrial Resources (NAEIR) find out every ten weeks what new products are available. Member schools receive an average of $7,000 worth of new supplies each year.

While the goods are free, shipping and handling is not. Nor is membership in NAEIR; the annual membership fee is $645. However, $645 in exchange for $7,000 worth of goods might be worth investigating! For an information packet, send a request on school letterhead to NAEIR, Dept. ER-4, 560 McClure Street, Galesburg, IL 61401; 800/562-0955 or 309/343-0704; fax 309/343-0862.

Workshops Offered By Kansas Program

The Assistive Technology Program in Topeka, KS has published its list of professional and family training workshops for the winter and spring months. Sessions include Alternate Access for IBM Computers, Computer Applications for Early Education, Pediatric Mobilization, and The Macintosh Computer.

For more information, contact the organization at 3500 SW 10th Avenue, Topeka, KS 66604; 913/272-4060.

The ACTT V Conference!!

What is ACTT V?

ACTT V is a small, informal technology conference which offers sessions and hands-on opportunities to learn about using computers and adaptive peripherals for young children with disabilities. The March 17-18, 1994 conference is the fifth annual technology conference sponsored by Project ACTT (Activating Children Through Technology), an Outreach project funded through the U.S. Department of Education's Early Education Program for Children with Disabilities.

Who should attend ACTT V?

ACTT V is for anyone who desires information and training about assistive technology. Teachers, parents, program assistants, school and program administrators, and State Part H and 619 coordinators who wish to learn more about assistive technology applications for children ages birth through eight with disabilities are welcome to participate. We keep the conference small to provide personal attention, hands-on opportunities with the software and equipment, and plenty of networking opportunities among participants.

What topics are covered?

Conference sessions include tips on adapting the Macintosh LC for young children with disabilities, ways to integrate technology into the early childhood classroom, creative curriculum activities, hands-on experiences with a variety of adaptive peripherals, preview labs for commercial and public domain software, opportunities to make a variety of switches, a Ke:nx workshop, and information on technology assessments, expressive arts, and the benefits and barriers of technology use for young children with disabilites.

When and where will ACTT V be held in 1994?

ACTT V will be held on March 17-18, 1994 in Horrabin Hall on the Western Illinois University campus in Macomb, IL. The conference begins each day at 8:00 am with registration and breakfast. Sessions begin at 8:30. Most sessions last an hour and a half; some hands-on sessions are 1/2 day sessions. The conference ends at 4:00 each day. Breakfasts, lunches, and sodas during breaks are included in the registration fee.

How can I be a part of ACTT V?

Just fill out the registration form below and send it with your registration fee to ACTT V, 27 Horrabin Hall, Western Illinois University, Macomb, IL 61455. If you have questions or would like to give a presentation, call 309/298-1634

ACTT V Registration Form

Name ______________________ Agency ______________________
Address ______________________ City ______________ State ________ Zip ________
Phone where I can most easily be contacted ______________________

Registration fees include continental breakfasts and luncheons each day.

Regular Registration
______ $50 enclosed for the two-day conference
______ $30 enclosed for Thursday, March 17 only
______ $30 enclosed for Friday, March 18 only

Special Deals:
______ $40 enclosed for early registration (Postmarked by December 23, 1993)
______ $40 enclosed per person for a Group Registration (four or more people from the same agency.)

Parents of young children (0-8) with disabilities
______ $30 enclosed for the two-day conference
______ $15 enclosed for Thursday, March 17 only
______ $15 enclosed for Friday, March 18 only

____ **Check if you require special accomodations**
What accomodations are requested: ________
____
____

Send all registration forms together with payment or purchase order.

Registrations after March 4, 1994 are $65 for two days; $45 for one day.

Questions? Call 309/298-1634. Ask for Joyce

Your payment or purchase order must accompany registration. Phone registrations are not accepted. Make checks and money orders payable to Macomb Projects (U.S. Funds only, please) Send payment and registration form to ACTT V Conference, 27 Horrabin Hall, Western Illinois University, Macomb, IL 61455.

ACTTive Teachers

Macintosh Computers Bring Technology To Coulee Children's Center

by Linda Robinson

On a recent follow-up visit to our La Crosse, Wisconsin birth-to-three site two ACTT staff members enjoyed meeting children, families, and staff at a program which actively uses the Macintosh LC computer. Lori Peacock, the Assistant Director of Coulee Children's Center, first became interested in technology after attending an ACTT session at the statewide augmentative communication conference in Eau Claire. She attended ACTT's week-long training in Macomb in January 1993. Since training, she has obtained funding for a Macintosh LC computer, peripherals, and software. The technology is used regularly with children, fifteen month to 3 years old, to help with a variety of skills. The computer has been successful both with small groups of children and with individuals.

Lori reports that the children's favorite software at this time are two programs, **Old MacDonald** and **Make It Go**, developed by KidTECH company in California. Both are Macintosh programs which can be used with the mouse, switch or TouchWindow. The latter device is used most often by these children. The programs help with choice-making and understanding causality, or they can be used just for "having fun," which may be the most important reason for these very young children.

McGee is also popular among the children who use the TouchWindow to select, as well as those few children who are able to operate the mouse. Skills in choice-making, causality, and fine motor are enhanced. **McGee** is also especially helpful for communication skills. **McGee** contains many objects, rooms, and sounds in a familiar environment of a little boy's house, providing something for the children to talk about.

In addition to these children's programs, the site has recently purchased **HyperStudio** for the Mac. Lori plans to design some exciting new applications for switch access!

Family involvement activities are an important part of Coulee Children's Center. WISTECH, Wisconsin's assistive technology project, has organized a lending library at the center for families. Switch toys, environmental controls, and adaptive equipment are among the items available for loan. Lori is planning family technology workshops in the future to help parents learn more about the computer and how it can benefit their young child.

Another goal for the site, to establish a second satellite birth-to-three program, will soon be realized. Since La Crosse is a rural area, children can be served more effectively by a local and center-based satellite program. The second satellite program will be in operation by the end of fall.

The center's next plan is to have a Macintosh LC computer at each of these satellite sites. With all the accomplishments the program has made in technology this past year, we know the Coulee Children's Center will reach their new technology goals in the near future.

ACTT SETS 1994 TRAINING DATES

Would you like to join the assistive technology bandwagon? Would you like to offer the children you serve deveolpmentally appropriate experiences with computers, adaptive peripherals, and software? Would you like to become an ACTT replication site and receive training and follow-up services? Now's the time!

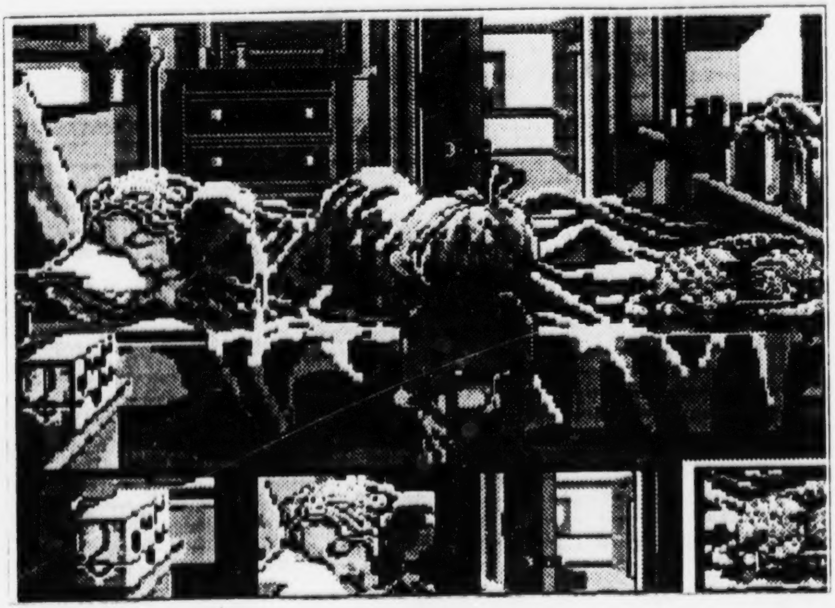
ACTT training dates have been scheduled for 1994! Join us for a week of extensive—and fun—training sessions in Macomb at our Western Illinois University facilities. Not only will you learn about Apple and/or Macintosh computers and their respective peripheral devices, you will also have opportunities to examine our extensive libraries of commercial, public domain, and shareware software.

Training dates are set for January 10 - 14, June 6 - 10, and July 25 - 19. For more information, contact Linda Robinson, ACTT Coordinator, 27 Horrabin Hall, WIU, Macomb, IL 61455; 309/298-1634.

TAKING "PICTURES" WITH YOUR MAC

SCREEN DUMPS MADE EASY

by Carol Schneider



Many exciting curriculum activities can be made using screen dumps. And Macintosh makes it easy for you to take "pictures" of the images on your screen. Just follow these easy steps.

You can capture any image on the screen of a Macintosh with System 7.0.1 by simply pressing **Command-Shift-3**. You will actually hear a "click" similar to the sound a camera makes when it takes a picture.

Each image captured is saved as a "picture" onto the desktop and labeled "Picture 1," "Picture 2," etc. The number of graphics you can capture using this method depends on your computer's available memory. If memory becomes limited, transfer the "Picture" documents to a disk.

The pictures are TeachText documents and can be opened and viewed by double clicking the "Picture 1" icon. The graphic can then be inserted or imported into a program that handles graphics, such as **ClarisWorks 2.0** (Claris Corporation). Once the picture is inserted into **ClarisWorks**, it can easily be selected and resized to your specifications.

The sample McGee picture shown on this page was captured using the described method and modified in **ClarisWorks 2.0**.

Suggested Activity

Screen dump an image from the children's favorite software program. Insert the TeachText document into a graphics program and make the needed modifications. Print the picture using a color ribbon in the ImageWriter II printer. Glue the picture to card stock or heavy paper and laminate it. Cut the picture into simple shapes and — voila — you have a puzzle!

Thinkin' Things Develops Critical Thinking and Creativity

Edmark's new software release, **Thinkin' Things**, helps students think analytically, solve problems creatively, and become successful learners.

As children play with **Thinkin' Things**, they build thinking skills essential to many disciplines--including math, science, reading, music, and art. Six innovative, engaging activities nurture intellectual and artistic development. Colorful characters and non-language-dependent learning provide a comfortable environment where children can explore their creativity, take intellectual risks, and learn to tackle new situations with confidence.

All instructions are graphical or spoken, so pre-readers and readers alike can discover and experiment on their own. The program, compatible with TouchWindow and single switches, is available from Edmark for $69.95. Call 800/362-2890 for information.

Newsletter Reviews Early Childhood Software

Children's Software Review is a new 12 page newsletter which will be published six times a year. The publication covers software for all computer platforms (IBM, MAC, Apple II, CD-ROM, Nintendo) for children ages 3 - 10. Each issue provides detailed information, ratings, prices, phone numbers, and hardware requirements for software. Subscriptions are $24 per year. Contact Children's Software Review, 520 North Adams Street, Ypsilanti, MI 48197-2482; 313/480-0040; fax 313/480-2260.

Access Information Through Your Computer

Your classroom computer can be a wonderful tool for the children, but don't overlook it as a wonderful tool for yourself as well! Programs are available to help you communicate with parents, create banners and newsletters, keep records on children's progress, maintain a classroom budget, and create individualized software to meet a child's specific needs.

Another use which perhaps you have not yet considered for your classroom computer is communicating with other educators via an information network known as SpecialNet. SpecialNet, designed by and for education professionals, is available 24 hours a day, seven days a week through virtually any telephone in the United States and Canada, as well as 70 other countries. SpecialNet can transmit and receive any information or data which can be entered on a computer keyboard. Electronic Mail, Electronic Bulletin Boards, Ed-Line, Electronic Conferencing, Electronic Data Collection, Specialized Databases and Private Databases are all features of SpecialNet.

Some current national SpecialNet bulletin boards which may contain interest for **ACTTive Technology** readers are described below.

Computer.Software is a bulletin board for user exchange of information on applications of computer technology. It offers opportunities for sharing of evaluations and information on educational software. Subscribers may use this board to ask others for help in locating effective educational and administrative software. Topical categories include Technologies; Questions/Answers, and Information Sharing. ACTT's Carol Schneider is co-editor of Illinois' Computer.Software board.

Earlychildhood is a bulletin board for sharing information for parents and professionals on issues surrounding the development of children ages 0-8 with special needs. Information includes coverage of policy, practice, research, resources, and calendars of events on the implementation of programs for infants and toddlers (Part H) and preschooler (Section 619) of IDEA. Topical categories include special education and habilitation.

CEC.News communicates information about activities of The Council for Exceptional Children (CEC). Topical categories are special education and habilitation.

SpecialNet subscription information is available from GTE Education Services, 5525 MacArthur Blvd., Suite 320, Irving, TX 75083; 214/518-8500.

Software Review

Bailey's Book House Excellent Companion to "Millie"

by Letha Clark

Bailey's Book House is Edmark's brand new software for early childhood. A "brother" to the already early childhood favorite **Millie's Math House**, this latest release also seems destined to become an award winner!

Prereading skills are enhanced as children explore the different options from Bailey's main room. An icon menu allows the non-reader easy access to all activities. Click on the wizard in the window to discover prepositions with "Edmo and Houdini." Use the "Letter Machine" to hear and see beginning letters and words. Create and then print many different four page stories using "Make-A-Story." Make "new" endings for familiar rhymes in "Read-A-Rhyme." Make greeting cards, gift cards, or invitations for any occasion using "Kid Cards."

Each of these activities is played in the explore and discover mode. "Edmo and Houdini," "Letter Machine," and "Read-A-Rhyme" also have a question and answer mode with one best answer. In this mode, the child will be successful in finding the best answer. Clicking on the hanging "portrait" allows the user to switch between the two levels of play.

Products created in two activities, "Kid Cards" and "Make-A-Story," can be printed. However, printing options and other preferences are in the adult section and must be set **before** the child decides to print (if not, the child's work will be lost). In addition to printing options, other preference settings include one for single switch accessability, an option to set the scan speed, a choice to turn music on or off, and an option to allow exit from the program. Additional program features allow children to hear words and sentences and see them highlighted.

Published by Edmark, **Bailey's Book House** retails for approximately $50. It needs 4.9 MB of hard drive space (8 MB need to be available for installation). Minimum system requirements are System 6.0.7 or later. System 6 requires 2 MB RAM; System 7 requires 4 MB RAM.

Ten Additional States and Territories Funded Under Tech Act

Ten states and U.S. Territories were funded in September 1993 under the Technology-Related Assistance for Individuals with Disabilities Act (Tech Act) of 1988. These new Tech Act states and territories, along with contact persons and addresses, are listed below.

Alabama
Lamona H. Lucas, Director
AL Dept. of Education
Division of Rehab Services
2129 East South Blvd.
Montgomery, AL 36111
205/281-8780

California
Brenda Premo, Deputy Director
Independent Living Division
CA Dept. of Rehabilitation
830 K Street Mall, 2nd Floor
Sacramento, CA 95814
916/445-6126

District of Columbia
Vincent Gray, Director
DC Dept. of Human Services
801 N. Capitol St. NE, Suite 700
Washington, DC 20002
202/727-0310

Kansas
Charles Spellman
Life Span Institute
University of KS
P.O. Box 738
Parsons, KS 67357
316/421-6550 ext. 1890

North Dakota
James Leary, Director
Office of Rehabilitation
400 East Broadway, Suite 303
Bismark, ND 58501
701/224-3999

Puerto Rico
Jose R. Santana, Director
Box 22484
University of Puerto Rico Station
Rio Piedras, PR 00931
809/754-8926

Rhode Island
Raymond A. Carroll
Deputy Administrator
Office of Rehabilitation Services
40 Fountain Street
Providence, RI 02903
401/421-7005

Samoa
Pete P. Galeái, Director
Division of Vocational Rehabilitation
Dept. of Human Resources
Pago Pago, American Samoa 96799
684/633-2336 or 633-7183

Washington
Edie McBride
DSHS/DVR, P.O. Box 45340
Olympia, WA 98504-5340
206/438-8049

Wyoming
Darol J. Koldenhoven
Program Consultant
Division of Vocational Rehab.
1100 Herschler Bldg.
Cheyenne, WY 82002
307/777-6841

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If you have questions about Apple or Macinosh computers, help from Apple is just a toll-free call away. Dialing 800/767-2775 (800/SOS-APPL) Monday through Friday between 6 am and 6 pm (Pacific Standard Time) will put you in touch with a staff member who will answer your questions. There is also a 24-hour line with recorded responses to common questions.

Canadian consumers can call 800/263-3394 to reach Apple's technical assistance line.

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State Projects Previously Funded Through the Tech Act

The new Tech Act states and territories join the 42 states which were previously funded. Their assistive technology project names and contact persons are listed below.

Assistive Technologies of Alaska
400 "D" Street, Suite 230
Anchorage, AK 99501
800/770-0138

Arkansas Increasing Capabilities Access Network
2201 Brookwood, Suite 117
Little Rock, AR 72202
501/666-8868

Colorado Assistive Technology Project
6355 Ward Road, Suite 310
Arvada, CO 80004
303/420-2942

Connecticut Assistive Technology Project
10 Griffin Road North
Windsor, CT 06095
203/298-2042

Delaware Assistive Technology Initiative
University of DE/A.I. Dupont Institute
1600 Rockland Road, Rm 154
Wilmington, DE 19899
302/651-6790

Florida Assistive Technology Project
1709-A Mahan Drive
Tallahassee, FL
904/488-6210

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New Dunamis Product Features 'Gestural Encoding'

Dunamis, Inc. has created a Macintosh Interface for the PowerPad that has much more power than simple Mac access. Not only does the interface allow single switch access, but it also allows access to software on the Macintosh and to battery powered toys in five ways:

1) PowerPad Grid Method;
2)PowerPad Mouse Emulation Method;
3)PowerPad "Gestural Encoding" Method;
4) Single Switch Method
5) IIe Emulation Method for PowerPad ToolKit.

The Macintosh keyboard and mouse remain active.

Dunamis explains "gestural encoding" as a method of computer input that allows a person's gestures on the PowerPad surface to be recognized as specific input. When in the Gestural Encoding mode, the PowerPad reads an entire motion or touch, not just the first area touched. Gestural Encoding focuses on the physical ability of the user and translates this into input in Hypercard. For example, a circular gesture anywhere on the PowerPad surface can activate one button and a right-to-left gesture can activate another button. The PowerPad will also recognize up, down, up-down, down-up, left, left-right, and tap gestures.

The Macintosh PowerPad Interface is $250 and includes the Interface Box, a power supply, a nine-pin PowerPad cable, software disks including Hypercard stacks, sample overlays, and instruction manual.

Contact Dunamis, Inc., 3580 F Hwy 317, Suwanee, GA 30174; 800/828-2443 for more information.

Special Needs Project Offers Books about Assistive Technology

The Special Needs Project has books about assistive technology that you may wish to add to your library. If you are interested in any of the books listed below, you may order them from The Special Needs Project, 3463 State Street, Suite 282, Santa Barbara, CA 93105-2603; 805/683-9633; 800/333-6867.

Breaking Barriers: How Children and Adults can Access the World through Simple Technology by Jackie Levin and Lynn Scherfenberg. Full of ideas and practical suggestions for adapting various electronic gadgets. 1986. 66 pages. $15.

From Toys to Computers by Christine Wright and Mari Nomura. Shows how to adapt toys for children with physical disaabilities, with an eye toward building the skills required for access to personal computers. 1991. 192 pages. $24.

Fun for Everyone by Jackie Levin and Kathy Enselein. Simple technology applied to leisure activities. 1989. 69 pages. $20.

Funding for Assistive Technology and Related Services: An Annotated Bibliography by Alexandra Enders. A nifty compilation of funding lore. 1992. 30 pages. $6.50.

Learning Disabilities and Computers: Access to the Curriculum by David Hawkridge and Tom Vincent. Examines a broad spectrum of disabilities and provides examples of applications and programs for each. Logo fans will find extensive discussion of its value regarding special needs. 1992. 240 pages. $23.

Selection and Use of Simple Technology: In Home, School, Work, and Community Settings by Jackie Levin and Lynn Scherfenberg. More suggestions for switches and gadgets. 1987. 88 pages. $20.

Special Education Technology: Classroom Applications by Rena Lewis. Well organized text,easy to read, many photos and other reader-friendly devices. 1993. 552 pages. $33.95.

Using Computers and Speech Synthesis to Facilitate Communicative Interaction with Young and/or Severely Handicapped Children by Linda Burkhart. Deals more explicitly with computers. 1987. $24.95.

Implementing Augmentative and Alternative Communication: Strategies for Learners with Severe Disabilities by Joe Reichie, Jennifer York and Jeff Sigafoos. 1991. 320 pages. $46.

IntelliTalk One of 1993's "Best Products"

According to Early Childhood News, one of the 100 best products for 1993 is *IntelliTalk*. Retailing at $39.95, *IntelliTalk* speaks letters, words, or sentences as you type, reads your writing back to you, has changeable type font and size, and can be adapted to pronounce words phonetically.

IntelliTalk is available for the IBM, Apple II, and Macintosh. The Apple II version works with an Echo™ speech synthesizer and runs onApple IIGS, Apple IIe with 128K RAM, Apple IIc, or any Mac LC with a IIe emulator card.

The Macintosh version uses the built in MacinTalk™ speech and requires a macintosh with System 6.0.7 or higher and 1Mb RAM.

Order from IntelliTools, Inc., 5221 Central Avenue, Suite 205, Richmond, CA 94804; 800/899-6687 (ext. 501).

FIRST CONNECTIONS™ THE GOLDEN BOOK ENCYCLOPEDIA®--EXCITING NEW TOOL FOR YOUNG LEARNERS

First Connections: The Golden Book Encyclopedia is now available on CD-ROM for the Macintosh. This complete, interactive information resource includes multimedia features that young children love--audio, color photographs, maps, illustrations, and animation--along with text written especially for young learners. The encyclopedia contains more than 1,500 articles and 2,700 color images.

An easy-to-use resource which provides an exciting and fun learning environment, **First Connections: The Golden Book Encyclopedia,** helps students develop their emerging literacy skills. Young readers build confidence in their ability to find information and solve problems on their own as they develop research skills essential for life in the Information Age.

Young children can explore the information and enjoy the animations, sound, and other multimedia. Older children will enjoy the software as a reference tool.

Special features include a built-in notebook which allows students to take notes or transfer text from an article, and then print or save the text. Online audio instructions provide explanations to the children. They may chose to have any or all of an article read aloud.

Children have four options for finding articles: alphabetically, by browsing, by category, or through a theme pathway that asks students questions and challenges them to find answers.

Other features include a Bookmark which allows students to mark and return to any article they have viewed during a session, a Tracker that keeps track of all articles a student has visited; Copy and Paste, Find Word, and Print.

A comprehensive teacher's guide, which includes sample lesson plans, theme-based activities, and program ideas for integrating the CD-ROM into the curriculum,accompanies the software.

A CD-ROM player and a Macintosh with System 6.0.7 or higher with a hard drive with 4Mb of RAM are required.

First Connections: The Golden Book Encyclopedia sells for $149.95. Contact Hartley, 133 Bridge Street, Dimondale, MI 48821; 800/247-1380.

Leasing Assistive Technology Provides Financial Alternative

ApparaTek, Inc. is a financial resource for schools that provides lease financing services to schools for special education programs, to rehabilitation centers, and to other institutions for augmentative communciation devices, workstations, and adaptive equipment.

Since IDEA requires schools to make assistive technology available to a child if it is specified as a part of the child's IEP, and since more students appear to be eligible for assisitve technology devices and services, a lease agreement can be structured to meet the needs of a particular school district so as student populations change so can the provision of technology devices.

Typical leases are from 24-60 months, with or without purchase/renewal options.

For more information, contact the company at 3000 Dundee Road, Suite 212, Northbrook, IL 60062; 708/291-9145.

New Products Enhance ToolKit 4

ToolKit 4 gave users freedom to create custom activities for the PowerPad. Recently, two new additions to the **ToolKit 4** family have been introduced by Dunamis. The **PowerPad Access Kit** for the IIe, IIGS, and Mac LC in the IIe emulation mode is $59.95. It makes **ToolKit 4** setups selfbooting and lets teachers share setups. It's accompanied by a book of shortcuts and creative ideas that will help users create new setups and customize old ones.

The other product, **Switch Access Kit,** gives switch access to **ToolKit 4.** You can choose from two switches, one that will run the setup from button 1 through the last button, and the other one that will let one specific button be triggered every time the switch is closed. $59.95.

Dunamis also plans to have **ToolKit 4.1** ready by the end of the year. It will give IIe emulation to the **Quick Start** library and all of the **ToolKit 4** family of programs, including **PowerPad Access Kit, Switch Access Kit,** and **ToolKit 4**. The product will sell for $99.95.

For more information about these or any other Dunamis product, contact the company at 3580 F Hwy. 317, Suwanee, GA 30174; 800/828-2443.

Tech Act Projects **continued from page 11**

Georgia Tools for Life
878 Peachtree Street NE, Rm. 711
Atlanta, GA 30309
800/726-9919

Hawaii Assistive Technology System
677 Ala Moana Blvd, Suite 403
Honolulu, HI 96813
808/532-7110

Idaho Assistive Technology Project
129 W. Third Street
Moscow, ID 83843
208/885-9429

Illinois Assistive Technology Project
411 East Adams
Springfield, IL 62701
217/522-7985

Indiana Attain Project
402 W. Washington St.
P.O. Box 7083
Indianapolis, IN 46207
812/855-9396

Iowa Program for Assistive Technology
University Hospital School
Iowa City, IA 52242
319/353-6386

Kentucky Assistive Technology Services Network
427 Versailles Road
Frankfort, KY 40601
502/564-4665

Louisiana Technology Assistance Network
P.O. Box 3455, Bin# 14
Baton Rouge, LA 70821
504/342-2471

Maine Consumer Information and Technology Training Exchange
Maine Cite Coordinating Center
University of Maine at Augusta
University Heights
Augusta, ME 04330
207/621-3195

Maryland Technology Assistance Program
300 W. Lexington St., Box 10
Baltimore, MD 21201
410/333-4975

Massachusetts Assistive Technology Partnership Center
Children's Hospital
Gardner 529
300 Longwood Avenue
Boston, MA 02115
617/727-5540

Michigan Assistive Technology Project
Michigan Dept. of Education
Rehabilitation Services
P.O. Box 30010
Lansing, MI 48909
517/373-4058

Minnesota Star Program
300 Centennial Building
658 Cedar Street
St. Paul, MN 55155
800/331-3027

Mississippi Project Start
P.O. Box 1698
300 Capers Avenue, Bldg. 3
Jackson, MS 39215
601/354-6891

Missouri Assistive Technology Project
U of MO-Kansas City, Rm 117
EDUC
5100 Rockhill Road
Kansas City, MO 64110
816/235-5342

MonTECH
634 Eddy Avenue
Missoula, MT 59812
406/243-5676

Nebraska Assistive Technology Project
301 Centennial Mall South
P.O. Box 94987
Lincoln, NE 68509
402/471-3647

Nevada Assistive Technology Project
711 South Stewart Street
Carson City, NV 89710
702/687-4452

New Hampshire Technology Partnership Project
#14, Ten Ferry Street
The Concord Center
Concord, NH 03301
603/224-0630

New Jersey Technology Assistive Resource Program
Labor Bldg, Rm. 806
CN 938
Trenton, NJ 08625
609/292-7496

New Mexico Technology Assistance Program
435 St. Michael's Drive, Bldg. D
Santa Fe, NM 87503
800/866-ABLE

New York State Triad Project
One Empire State Plaza, Tenth Floor
Albany, NY 12223
518/474-2825

North Carolina Assistive Technology Project
1110 Navaho Drive, Suite 101
Raleigh, NC 27609
800/852-0042

Ohio Assistive Technology Project
400 E. Campus View Blvd. SW5F
Columbus, OH 43235
614/438-1450

Oklahoma Assistive Technology Project
DHS, RS #24,P.O. Box 25352
Oklahoma City, OK 73125
405/424-4311

Oregon Technology Access for Life Needs Project
500 Summer Street NE
Salem, OR 97310
503/945-6265

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TASH Product Reinforces Scanning Skills

by Carol Schneider and Linda Robinson

Scan Mate, a small portable digitized recorder from TASH, Inc., can easily be held in a child's small hand or placed on a wheelchair tray. The power source is 4 AAA batteries that allow for approximately 1000 activations. The device allows four messages to be recorded. To record, push the record/play button toward the pink dot. Touch one of the 4 squares and the red record light will come on. Speak into the microphone until the light goes out. You have 4 seconds to record. Push the record/play (green dot) button to play. Touch the square under which you recorded your message. Different overlays for the Scan Mate can be easily adapted for a child's needs (e.g. icons, tactile material, and/or pictures).

Scan Mate can be used to reinforce beginning scanning skills. For Scan Mate to be successful, a child needs to understand the concept of causality. (See ACTT's Levels of Switch Progressions in Summer 1993 **ACTTive Technology**.)

Suggested Activities

Simple Switch Input. One switch activation will repeat an action. Plug a switch into the jack with the green dot. Once the switch is activated, the unit will automatically scan the 4 locations on the keypad. When the light is on the square you wish to choose, activate the switch and the recorded phrase will be spoken. If the child does not select another phrase, the scan will continue for one minute and then the unit will go to "sleep" until the switch is activated again.

Activity:

For beginning simple switch input for a young child, record the same message in all 4 overlays, such as, "please read." Even though the light automatically scans, the child doesn't necessarily need to understand this function. Encourage the child to activate the switch to get a response from the Scan Mate. Once the switch is activated, read a favorite book to the child. After the child has established this simple causality, increase the number of phrases on the Scan Mate such as: please, read again, yes, no, etc.

Appropriate time to press switch. With Visual Cue and 4 Choices.

Scan Mate presents the child with a visual cue, and the child presses the switch only after seeing the cue.

Activity #1:

Record 4 different phrases on the overlay of the Scan Mate. For each phrase, have a concrete object readily available, such as a ball, a doll, a book, and bubbles. Encourage the child to activate the switch. When a child has made a selection, present the child with the concrete object.

Activity #2:

Record 4 new phrases on the overlay. Instead of concrete objects, record wants and needs such as: "please," "help me," "my turn," and "I want ......" The overlay could display icons, sign language, or pictures to represent these phrases. After the child has made a selection, respond to the phrase appropriately.

Two Switch Input. With Visual Cue and 4 Choices.

Each switch causes a different action. Plug two switches into the jacks. Once a switch is inserted into the top jack, it will allow the unit to automatically step scan the 4 squares on the keypad. When the second switch (green dot) is activated, the recorded phrase will be spoken.

Activity:

Create a new overlay. The child will use one switch to start the scan and the other switch to select the desired picture. Colorful stickers could be placed on the switches. For example a green sticker could indicate "start" and a red sticker "stop." The stickers could also be placed on the child's hand. The child can use two switches to indicate simple wants and needs.

Use software with the Adaptive Firmware Card or Ke:nx to achieve other levels of switch progression.

Resource Book Provides Parents Information About Educaton and Law

"Parents Get Your ACT Together and Take It to School" is the latest TECH NOTE available from the Illinois Assistive Technology Project. Written by a parent who has "been there," this booklet identifies resources that can help parents learn about the education laws and identifies techniques and strategies to help parents make the law work for them by becoming effective team members in planning their child's IEP. Filled with tips and encouragement for parents who advocate for their children, the booklet is available (single copies only) for no charge from the Illinois Assistive Technology Project. Call 800/852-5110 or 217/522-7985.

Technology Inservice Workshops Scheduled for Winter

What can computer and adaptive peripheral do for young children with disabilities? How can the computer help you make routine tasks easier? The Technology Inservice Project (TIP) is offering six inservice workshops to help meet your needs.

On January 24 a hands-on workshop about databases and spreadsheets will give you practical experience with applications designed to simplify budgeting, inventory, and record keeping tasks. Getting To Know Your Computer, a workshop for computer novices, is scheduled for January 28.

In February, participants can spend a day learning to make homemade switches on the 4th. An introduction to peripheral devices will be held on the 18th, while a session focusing on preschool computer applications is scheduled for the 25th.

A final workshop for the winter semester, Family Involvement, takes place on March 11. Among other topics, participants will discuss tips for involving families and designing family workshops.

All sessions will be held at the Macomb Projects' Western Illinois University facilities. There is no charge to attend any of the workshops; however, a $5 materials fee is charged for the switch workshop on February 4.

TIP is also available for on-site inservice workshops.For more information, call Karen Baird at 309/298-1634.

Have you read about our revised and brand new products? See page 4 for more information!

Multiple Intelligences, Art Focus of Two New Videos

The Seven Ways of Knowing...Understanding Children's Multiple Intelligences and **Early Learning in Reggio Emilia, Italy** are two of the most recent videotapes offered by Macomb Projects' Project APPLES.

In **The Seven Ways of Knowing...**, David Lazear, founder of New Dimensions of Learning and author of **The Seven Ways of Knowing**, provides viewers with practical strategies for awakening the full spectrum of intelligences, techniques for developing and nurturing them, and tools to structure lessons that incorporate multiple intelligences.

The second tape, **Early Learning in Reggio Emilia, Italy**, features Brendy Fyfe, Associate Professor and Chairperson of the Dept. of Education at Webster University. Dr. Fyfe discusses the history and approach of Reggio Emilia's community support of quality early childhood education, including the role of the teacher, the environment (*the third teacher*), project studies, and family involvement.

Each hour-long videotape is available for $49.95 from Project APPLES, 27 Horrabin Hall, WIU, Macomb, IL 61455. Illinois residents should call Project APPLES at 800/227-7537 for Illinois pricing information.

Tech Act Projects continued from page 14

Pennsylvania's Initiative on Assistive Technology
Ritter Hall Annex 433 (004-00)
Philadelphia, PA 19122
215/204-1356

South Carolina Assistive Technology Program
P.O. Box 15, 1410-C Boston Ave.
West Columbia, SC 29171
803/822-5404

Dakota Link
2110-B St. Martin's Drive
Rapid City, SD 57792
800/645-0673

Tennessee Technology Access Project
Doctor's Bldg, Suite 300
706 Church Street
Nashville, TN 37243
800/732-5059

Texas Assistive Technology Project
UAP of TX, Dept. of SpEd
EDB 306
Austin, TX 78712
512/471-7621

Utah Assistive Technology Program
UMC 6855
Logan, UT 84322
800/333-UTAH

Vermont Assistive Technology Project
103 South Main Street, Weeks 1
Waterbury, VT 05671
802/241-2620

Virginia Assistive Technology System
4900 Fitzhugh Ave.
Richmond, VA 23230
804/367-2442

West Virginia Assistive Technology System
Capital Complex
Charleston, WV 25305
800/841-8436

WISTECH
P.O. Box 7852
1 W. Wilson Street, Rm. 590
Madison, WI 53707
608/266-5395

Calendar of Conferences

January 20-22, 1994: Technology, Reading & Learning Difficulties Conference in San Francisco, CA. Contact Educational Computer Conferences, 1070 Crows Nest Way, Richmond, CA 94803; 510/222-1249 or 800/255-2218.

January 31, February 1, 1994: Florida Adaptive Technology Impact Conference in Tampa, FL. Contact Jeffrey Fitterman, Conference Chair, The Florida Instructional Materials Center, 5002 N. Lois Ave., Tampa, FL 33614; 813/872-5281.

February 3-5, 1994: Eleventh Annual Technology and Media (TAM) Conference on Special Education and Technology in St. Paul, MN. Contact Council for Exceptional Children, 1920 Association Drive, Reston, VA 22091; 703/620-3660.

February 28, March 1-2, 1994: Midwest Education and Technology Conference at the Ritz-Carlton Hotel in St. Louis, MO. Contact Regional Consortium for Education and Technology, 13480 South Outer Forty Road, Ste. #101, Chesterfield, MO 63017.

March 3-5, 1994: Gateway to Communication, The Ohio Speech & Hearing Association's 48th Annual Conference in Cleveland, OH. Contact Innocomp, Suite 302, 262210 Emery Rd., Warrensville Heights, OH 44128.

March 16-19, 1994: Technology and Persons with Disabilities Conference at the Los Angeles Airport Marriott Hotel. Contact Dr. Harry Murphy, California State University, Northridge, 18111 Nordhoff St., DVSS, Northridge, CA 91330; 818/885-2578.

March 17-18, 1994: ACTT V Technology Conference in Macomb, IL. Contact Project ACTT, 27 Horrabin Hall, Western Illinois University, Macomb, IL 61455; 309/298-1634.

March 30, 1994: Southwest Missouri Education and Technology Conference at University Plaza in Springfield, MO. Contact Regional Consortium for Education and Technology, 13480 South Outer Forty Road, Ste. #101, Chesterfield, MO 63017.

April 15-17, 1994: Technology, Reading & Learning Difficulties Conference in Baltimore, MD. Contact Educational Computer Conferences, 1070 Crows Nest Way, Richmond, CA 94803; 510/222-1249 or 800/255-2218.

April 21-23, 1994: The 35th Annual Conference of the California Transcribers and Educators of the Visually Handicapped in Costa Mesa, CA. Contact CTEVH, 741 North Vermont Avenue, Los Angeles, CA 90029-3594.

June 9-10, 1994: Virtual Reality and Persons with Disabilities (CSUN's Second Annual Conference) at the San Fransisco Airport Marriott Hotel. Contact Dr. Harry Murphy, California State University, Northridge, 18111 Nordhoff St., DVSS, Northridge, CA 91330; 818/885-2578.

June 13 - 15, 1994: National Educational Computing Conference in Boston, MA. Contact NECC '94, International Society for Technology in Education, 1787 Agate Street, Eugene, OR 97403-1923; 503/346-2834.

June 17-22, 1994: RESNA '94 in Nashville, TN. Contact RESNA, Suite 700, 1101 Connecticut Ave. NW, Washington, DC 20036; 202/857-1199.

June 25-29, 1994: World Conference on Educational Multimedia and Hypermedia in Vancouver, Canada. Contact Association for the Advancement of Computing in Education, P.O. Box 2966, Charlottesville, VA 22902 USA.

LAUREATE OFFERS NEW LANGUAGE SOFTWARE SERIES

Laureate Learning Systems, a leading publisher of talking software for special needs, has begun releasing Macintosh versions of its product line. The first three releases are the Language Activities of Daily Living Series: **My House**, **My Town**, and **My School**. These programs take full advantage of the Mac's capabilities, offering excellent-quality digital speech, high-resolution color graphics, and many new customization features. The Language Activities of Daily Living Series is designed to help children and adults with disabilities understand and express the language they are likely to encounter in their daily lives.

With each program, Laureate offers a free set of goals and objectives that were developed to help speech-language pathologists and special educators prepare Individualized Education Plans for students. They can be directly inserted into IEPs or modified to suit an individual's needs.

For more information or for a free set of goals and objectives, contact Laureate Learning Systems, 110 East Spring Street, Winooski, VT 05404 or call 800/562-6801.

Group Offers Consulting Services

Innovative Abilities, a consulting and counseling organization concerned with people who have disabilities and their families, offers family counseling, child care training, and special needs finders service. For more information, contact Innovative Abilities, P.O. Box 6337, Colorado Springs, CO 80934-0337; 719/633-4103.

Use Appropriate Language: Put the Person First!

One of the strongest and easiest ways to promote a positive environment for persons with disabilities, no matter what their age, is the use of appropriate language.

An August 1992 statement from the American Association of State Colleges and Universities recommends using "person first" language which emphasizes the person first and the disability second. Persons without disabilities should be referred to as "nondisabled," not "normal" or "able-bodied." The following examples illustrate alternatives for language which has negative connotations.

Instead of saying...

- disabled or handicapped child
- mute or dumb
- blind child
- deaf student
- paraplegic
- paralyzed woman
- epileptic
- slow learner, retarded,or learning disabled
- crazy, demented, insane
- mentally retarded
- birth defect
- disabled child

Say...

- child with a disability
- individual without speech
- child who is blind (or visually impaired)
- student who is deaf (or hearing impaired)
- man with paraplegia
- woman who is paralyzed
- person with epilepsy
- child who has a learning disability
- person with a mental disability or cognitive impairment
- person with a developmental disability
- congenital disability
- child with a disability

Use the word "handicap" in reference to a condition or physical barrier, not to a person. For example, say, "The stairs are a handicap for her," or "The narrow hallway handicaps her ability to maneuver her wheelchair."

"Person first" language places emphasis on the individual—where it rightfully belongs.

*The preceding material was adapted from a statement prepared by the American Association of State Colleges and Universities.

Anti-bias References

For information about incorporating anti-bias, mulicultural information into your curriculum, check out these resources:

Derman-Sparks, L. "Anti-bias, Multicultural Curriculum: What is Developmentally Appropriate?" In S. Bredecamp and T. Rosegrant, Eds. *Reaching Potentials: Appropriate Curriculum and Assessment for Young Children.* Washington, DC: NAEYC, 1992.

Froschl, M., Colon, L., Rubin, E., and Sprung, B. *Including All of Us: An Early Childhood Curriculum about Disability.* New York: Educational Equity Concepts, 1984.

Kendall, F. *Diversity in the Classroom: A Multicultural Approach to the Education of Young Children.* NY: Teachers College Press, 1983.

Phillips, C.B. "Nurturing Diversity for Today's Children and Tomorow's Leaders." *Young Children 43* (1988): 42-47. EJ 365 173.

SOFTWARE PROMOTES DIVERSITY, ANTI-BIAS

ACTTive Technology provides this column as a regular feature for helping teachers use technology to expand their anti-bias curriculum.

If you are attempting to integrate cultural awareness and diversity into your curriculum, consider **Ananse The Spider**, Apple II software developed by Learningways, Inc.

Part of the **Explore-A-Folktale** series, **Ananse The Spider** embodies the unique style of art, language and oral, participatory storytelling from the culture of Western Africa. Using color and interactive graphics, the program allows children to get where they want to go and do what they want to do by simply pointing.

The **Ananse The Spider** program includes a 13 scene Story Teller sequence for reading or exploring the story and a 13 scene Story Maker sequence which allows children to write and illustrate their own stories based on the scenes, characters and objects appearing in the tales of Ananse's adventure with the strange sparkling stone. Other students may enjoy the Writer's Workshop section which provides 10 activities for storywriting.

Extend the computer activity by explaining the tradition of oral storytelling and then providing children with other stories and activities about Ananse with books such as **Ananse** by Gail E. Haley, **Anánsi and the Moss-covered Rock** retold by Eric A. Kimmel, and **Anasi the Spider** by Gerald McDemott. Encourage children to use the software to create their own versions (or new ones!) of the Ananse tales.

Ananse The Spider is available from William K. Bradford for $75.00. Call 800/421-2009 for ordering information.

Simple Switch Software Records Child Progress

Macomb Projects has software available for Apple II computers and Macintosh computers which use a IIe emulator card. Use the order form below to order these and other products. A catalog is available upon request.

Switch 'N' See

This program helps reinforce understanding of cause and effect in a cognitively young child. When a switch is pressed, a rag doll appears on the monitor and dances to "Skip to My Lou." The doll dances as long as the switch is activated.

The program has record-keeping capabilities. Number of seconds between switch presses, number of switch presses, and number of notes played are recorded. Records may be printed.

The program costs $11.95.

Master Blaster

This game for two players reinforces visual attending with a switch response. A "beep" may be added as an auditory cue for the child.

A rocket ship appears on the screen and the child who presses his/her switch first launches the rocket. **Master Blaster** keeps track of who pressed the switch first and how many times each child launched the rocket. After each launch, the children are told who launched the rocket.

If a child tries to get an "edge" on his opponent by holding his switch down before the rocket appears on the screen, the program says, "(Child's name), release the switch." This is repeated until the press is released.

Master Blaster ($11.95) is used with the Echo Speech Synthesizer.

Simple Switch Activities

The program ($11.95) includes four activities which can be used to train switch use for cause-effect relationships. The record-keeping information includes number of presses, duration of press, and elapsed time between presses. Time is recorded in seconds to give you accurate documentation for measuring skill acquisition.

MACOMB PROJECTS' COMPUTER PRODUCTS ORDER FORM

Name/Agency ______________________

Shipping Address ______________________

City ______________________

Phone (____) ______________________

Billing Agency ______________________

Billing Address ______________________

State/Zip ______________________

Date of Order ______________________

Products	Price	Quantity	Total
MAKE CHECKS PAYABLE TO MACOMB PROJECTS		SHIPPING	
		TOTAL	

Your check or purchase order must accompany the order. Purchase Orders may be faxed to 309/298-2305. No phone orders accepted. Materials are shipped parcel post unless other arrangements are made. Please allow four to six weeks for delivery. Prices are subject to change without notice.

Orders from outside the U.S. must be paid in U.S. funds drawn from U.S. banks. Allow additional time for shipment.

ACTTive Technology Subscription Form

Name ____________________

Agency ____________________

Street Address ____________________

City ____________________ State __________ Zip __________

For a year's subscription to *ACTTive Technology*, complete this form and return it with a purchase order or check for $16.00 to Macomb Projects, 27 Horrabin Hall, Western Illinois University, Macomb, IL 61455.
Orders from outside the U.S. must be paid for in U.S. funds drawn from U.S. banks.

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Macomb, Illinois 61455-1396

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